

MAY 8 1928



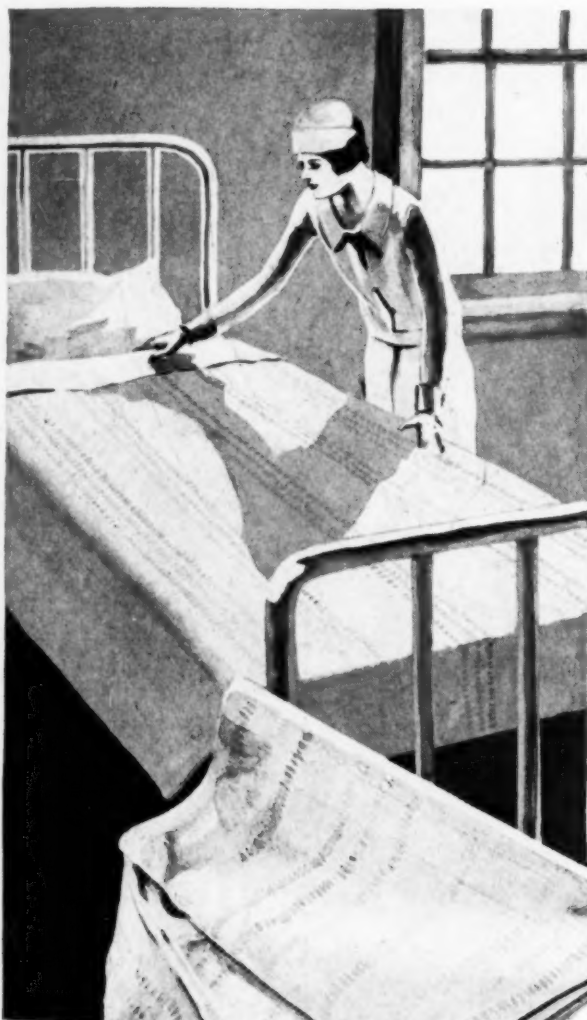
# *The* MODERN HOSPITAL

Vol. XXX, May, 1928 No. 5

Published monthly at 660 Cass Street, Chicago, Ill., by The Modern Hospital Publishing Co., Inc. Entered as second-class matter October 1, 1918, at the Post Office at Chicago, Ill., under the act of March 3, 1879. Copyright, 1928, by THE MODERN HOSPITAL PUBLISHING CO., Inc. Subscription—United States, \$3.00; Canada, \$3.50; Foreign, \$4.00.

# PIONEER

Heavier, Finer  
Bed Spreads  
For Less



FOR the hard usage of Hospitals, there are no **Crinkled Spreads** that are sturdier or more resistant to wear than Pioneer. Durable and of fine appearance, they are especially built for hospital use and their quality renders long service.

## They Cost Less —The Reason?

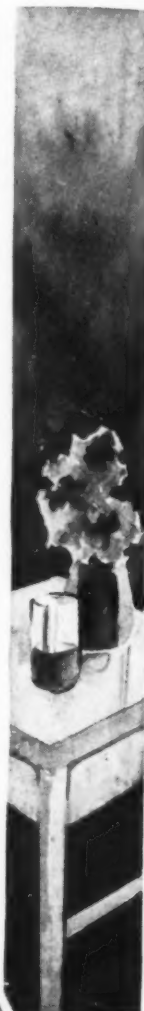
As we control the manufacture of Pioneer Spreads you buy direct from us, thus avoiding multiplied dealer's profits and assuring yourself of consistent quality.

This is but one phase of Rhoads & Company's service to hospitals. For over 37 years we have constantly been working toward better and more economical methods in supplying to Hospitals the grades of merchandise they particularly require.



A most important development in Sheets and Pillow Cases is about to be announced. Watch for it!

**RHOADS & COMPANY**  
107-111 N. 11th Street  
Philadelphia





# THE MODERN HOSPITAL

*A Monthly Journal Devoted to the Building, Equipment and Administration of Hospitals, Sanatoriums and Allied Institutions, and to Their Medical, Surgical and Nursing Services*

Vol. XXX

May, 1928

No. 5

## The Psychiatric Observation Ward\*

By THERON J. VOSBURGH, M.D.

Psychiatrist, Westchester County Department Hospitals and Health, Valhalla, N. Y.

**O**BSERVATION wards for patients afflicted with mental diseases have developed in the past as solutions of urgent community need rather than through forethought and carefully considered plans. Communities in which the mental hygiene program has anticipated the public's requirements for this type of service are still comparatively rare. The public has been slower to recognize the importance of proper organization to combat mental diseases than has been the case with more obvious physical ailments.

In New York City, for instance, the observation ward at Bellevue Hospital was not originally started as such, but was an outgrowth of the old detention house. The psychopathic ward gradually became necessary in order to segregate the insane from vagrants and criminals. A similar history has obtained in other cities. The development of

these facilities has been rather uneven the country over, some sections being well provided for while others are still neglecting this matter.

A brief definition of an observation ward might be: A hospital or a division of a hospital for the reception of persons thought to be mentally ill, for a period of clinical observation, in order to determine the disposition that should be made of these cases.

In New York State the legal period of observation is ten days, it being incumbent upon the hospital either to release the patient or to make a definite recommendation concerning his care before the termination of that period. This ten-day interval is extendible to 30 days by discretion of the judge of a court of record. Patients in no instance may be held

against their will for a longer period. The legal period of observation varies in the different states; many, however, follow essentially the same plan as New York State.

In order to provide a clear basis for later com-

### An Advantage to the General Hospital

**A**NY large general hospital is directly benefited by maintaining a ward for segregation and study of mental cases. It is possible thereby to remove from the other wards of the hospital disturbed or noisy patients who would otherwise temporarily disturb the work in those wards, and whose transfer to other institutions is sometimes difficult to effect.

The establishment of an observation ward adds to the completeness of the service which the general hospital may offer. It obviates the necessity of turning away at the admitting desk all pronounced nervous or mental cases.

\*This is the sixth of a series of articles dealing with the problems of hospitals for the mentally ill.

ment, it seems wise to outline the mechanics of the observation of mental cases as carried out in the average observation ward. First of all, the patient must either voluntarily come to the hospital or must be referred there. The majority of the patients are referred to the hospital by their own relatives, who recognize or think they recognize abnormal mental symptoms, and who bring the patient to the observation ward for diagnosis and advice.

### How an Observation Ward Functions

Health officers also frequently refer patients. The family often applies to the local health officials before seeking the assistance of the observation ward. Family physicians are also prone to consult with the health officers of their districts in connection with such patients. Not a few patients are received through the avenue of police departments. These are usually persons whose abnormal behavior has, in some way, brought them athwart the law. Fairly frequently, judges who are trying cases in court recognize the probability of mental disease and before making a decision refer the patient to the observation ward so as to obtain psychiatric consultation. Sometimes the patient is referred to the observation ward directly by his family physician and not infrequently by social work agencies.

In New York State an observation ward duly recognized by the State Commission for Mental Diseases may hold a patient for ten days' observation upon the written request of a health officer, a regularly licensed physician, or a court. Voluntary cases may also be accepted.

Granting that the patient has been referred from some of the above sources to the observation ward, what is the observation ward's procedure in determining his sanity? First of all, as complete a medical history as possible is obtained at the time of admission, care being taken to detain relatives or others familiar with the case for questioning, so that a complete picture of the condition may be obtained. This history is then checked and supplemented by means of social workers especially trained for this work.

The patient's history is even more important in psychiatry than in the ordinary medical and surgical case, and must be painstakingly prepared and studied if the patient is to have the best advice. The patient is, of course, thoroughly examined physically and he is also given a careful mental examination upon admission. The patient is observed daily by the doctors on the ward. All necessary laboratory work is done and every effort made to arrive at a correct physical and mental diagnosis of the case.

In New York State the physician in charge of the observation ward may without consultation decide that the patient is not committable to an institution for long term care, and he may release the patient if he sees fit. If, however, it appears to be necessary for the patient to be committed to a state or private institution, or to have his liberty curtailed in any other manner, it is required by law that two physicians who are legally qualified as examiners in lunacy, shall examine the patient jointly and together and, in case they agree, make a recommendation to a court of proper jurisdiction concerning the disposition of the case.

The examiners in lunacy having decided upon a course of action, it is necessary for them to prepare an application for commitment. This application for commitment must include:

A petition from "any person with whom an alleged insane person may reside, or at whose house he may be, or the father or mother, husband, or wife, brother or sister, or child of any such person, or the nearest relative or friend available, or the committee of such person, or the officer of any well recognized charitable institution or home, or any overseer of the poor of the town, or superintendent of the poor, or other officer performing the duties of superintendent of the poor of the county in which any such person may be." Reference: New York State Insanity Law, Article 4, Section 82.

This petition must contain a statement of the facts upon which the allegation of insanity is based.

Accompanying the above petition must be the certificate of lunacy made by the two medical examiners in lunacy. In case the commitment proceedings are being made against the wish of the relatives of the patient, as is sometimes the case where a patient is dangerous to society and the relatives still refuse to cooperate in confining him, it is necessary to serve notice upon the relatives that a commitment is being applied for. The relatives then have a right of hearing before the committing judge before a decision is made.

### Method of Commitment

The petition of the relatives and the certificate in lunacy having been prepared, it is legally required that personal notice be served upon the patient that such is being presented to a court, and if the patient so signifies he also has the right of a personal hearing before the judge. Or if, in the opinion of the medical examiners, such personal service is detrimental to the patient and they so state in affidavit form, the judge hearing the application must waive personal service.

The next step in the process requires the presentation of the application for commitment to any court of record of proper jurisdiction. The judge with or without a hearing for benefit of relatives or patient, as the case may be, either approves or disapproves of the application. As was stated above, he must hold a hearing if the patient or his relatives wish it.

It is within the judge's power: (a) To commit the patient to a public or private institution for the long term treatment of mental diseases. (b) To discharge the patient. (c) To parole the patient to the custody of a responsible person.

If the patient be legally committed to an institution by the judge, it is the duty of the observation ward to make arrangements with the other institution and, in conjunction with it, to effect a safe transfer of the patient.

### Hospitals Should Have Observation Wards

Any large general hospital is directly benefited by maintaining a ward for segregation and study of mental cases. It is possible thereby to remove from the other wards of the hospital disturbed or noisy patients who would otherwise temporarily disturb the work in those wards, and whose transfer to other institutions is sometimes difficult to effect. The establishment of an observation ward adds to the completeness of the service which the general hospital may offer. It obviates the necessity of turning away at the admitting desk all pronounced nervous or mental cases.

There is also a definite value to the general hospital in having a staff of competent psychiatrists who are available for consultation and advice in connection with the psychiatric problems that are continually arising in connection with other illnesses. A psychiatric department rounds out the service of the hospital and makes it a more valuable training ground for interns, student nurses and postgraduate medical students.

The advantage to the hospital itself would not be enough to justify the expense of such a service, but the community is immensely benefited when proper observation facilities are provided.

One of the important advantages of the observation ward in a community is the fact that it keeps the mentally sick out of the jails and the police stations. It is a regrettable fact that many communities still have no other place where disturbed cases may be safely handled, from the point of view of the public. From the point of view of the patient, of course, nothing could be more cruel or unjust than incarceration and classification with criminals.

It is even possible by means of the observation

ward to save many persons who have transitory mental disturbances from commitment for long term care and from being definitely classified as "insane." An observation ward is also able to sort out the feeble-minded, the epileptic, and the mental cases before they go to institutions for long term care, and thereby saves the public purse the expense of subsequent transfers, reclassifications and loss of time in obtaining proper treatment.

A skilled psychiatrist and his social workers can often, by means of a period of observation, straighten out difficult family situations that might otherwise lead to definite psychosis of one or more persons. Moreover, the close availability of an observation ward in the community encourages early treatment of mental cases. The patient or his family is much more likely to seek the psychiatrist's advice before the mental illness has proceeded beyond hope of amelioration. Patients will also come more freely for advice when they come to a general hospital rather than to a hospital definitely labeled in the public mind as "mental." A closer understanding of mental diseases on the part of the public will, no doubt, remove this stigma in the course of time. At present, however, it is unfortunately true that mental diseases are still looked upon by many persons as something to be hidden—this fact making the adjustment of the patient upon his return home, much more difficult.

### Isolation of Observation Ward Desirable

As was mentioned above, an observation service may be operated more economically in connection with a large hospital where overhead costs are low. In the general hospital the observation ward may have the advantage of laboratories, x-ray departments, physiotherapy and other special adjuncts, which can be more thoroughly and economically developed for a large institution than for a small one. The constant availability of a visiting staff, representing all of the branches of medicine, is of distinct value to the psychiatrist in diagnosing and in treating his patients. A general hospital can always maintain an operating room which is not infrequently necessary in connection with mental cases. The same is true in connection with the use of the obstetrical service for mental conditions in parturient women. The genito-urinary and the venereal disease services are also frequently used.

The observation ward may be housed according to one of a number of schemes in relation with the remainder of the hospital. The most desirable arrangement, of course, is a separate but connected building, the entire building being

devoted to psychiatric work. If this is not convenient, a separate floor or separate wing can usually be arranged for the proper functioning of the service. It is preferable that the disturbed patients, at least, be housed on the first floor, in view of the frequency with which suicidal tendencies are encountered.

Whether the ward be housed in a separate building, a separate floor, or a separate wing, it is important that the ward be isolated, as far as possible, from the remainder of the hospital and that the windows of the rooms housing patients have a pleasant outlook. It is particularly undesirable to have a psychiatric ward overlooking a court that abuts on other wards of the hospital.

It is well, also, to place the department where patients will not witness any activities, such as the arrival of visitors, or arrival of patients, and be distracted thereby. Improper location of the ward may sometimes be a source of embarrassment to the hospital because of the tendency of these patients to call to passers-by and otherwise make a disturbance.

#### Variety in Cases Presents Housing Problem

If the observation ward is of any considerable size, it should have separate wards or sections for the following classes of patients: (a) Male: disturbed; semi-disturbed and restless; quiet. (b) Female: disturbed; semi-disturbed and restless; quiet. (c) Children: disturbed; semi-disturbed and restless; quiet.

It is usually unnecessary to provide as many beds for children as for the adult male and female services. In planning the ward, it is desirable to emphasize the facilities for the care of borderline cases, which are usually not committable and which are likely to remain for long, voluntary periods of care.

In planning the ward it is also necessary to consider mental defectives, alcoholics and drug addicts. The extent to which the hospital facilities meet the community's demands will determine the policy as to the admission of such patients. It seems altogether desirable that they be cared for, if such be at all possible. It is also necessary to consider delirious conditions accompanying physical disease, which may arise in the general hospital and necessitate transfer to the psychiatric service.

The quiet ward in a multi-storied building may, with little danger, be on the top floor. It must have large and adequate day-room and recreation space. It should be near the exercise courts. It should be arranged so as to care for a greater proportion of ambulatory patients than the other sections. There should therefore be more dining

room space. Mental patients should be kept in the most cheerful environment possible. They usually appreciate a pleasant view. Such wards may, with safety, have more decorations.

In the semidisturbed section it is necessary to give more attention to the physical care of patients, although ample day-room space is needed. These patients cannot be trusted to the same extent as those in the quiet ward, but their quarters should be made as attractive as is possible, under the circumstances. A feature that might have special thought in such a ward is the matter of flooring. These patients are seldom of the type who mutilate or tear up linoleum or other flooring. A rubberized or other resilient flooring is advantageous, inasmuch as falling is not infrequent, particularly among mild senile dementias and disoriented patients.

It would also be helpful if a plan were followed such as is carried out in, at least, one general hospital, namely, the arrangement of heating coils that will keep the floors warm. The senile patients, particularly, are prone to remove shoes and stockings or other clothing, and frequently catch cold from contact with floors of the ordinary type.

The disturbed ward should be largely made up of single rooms, with a small proportion of the section in an open ward. It is necessary here so to design the building and the furniture as to prevent self-injury of patients as far as possible. Unnecessary loose articles should not be around the ward. Beds should be provided that cannot be taken apart and used as weapons. Ample protection should be provided in every way for both patient and nurse. The desirability of sound-proofing in these sections cannot be overemphasized, and the need of an isolated location near the ground has already been mentioned. If possible, the walls for seven feet above the floor, should be covered with cement plaster, which would offer the maximum resistance to the destructive tendencies of many of these patients.

#### Insure Safety to Patients and Staff

All of the sections of an observation ward should have ample protection, as follows:

a. Windows should be securely barred. These bars may take the form of grille work, which gives a less jaillike appearance.

b. All radiators and steam pipes should be guarded so as to prevent burning of patients.

c. All windows, with the possible exception of the quiet ward, should be equipped with sliding inner guards, which would prevent patients from breaking the windows and using the glass for suicidal or other purposes.

d. All doors should be equipped with small apertures or windows covered with heavy glass, which will enable the nurse to look into the room before opening the door.

e. All electric fixtures should be out of reach of the patients; on the disturbed sections, they should be securely guarded.

f. All electric switches should be in the corridors and not in the rooms.

g. It is also necessary to provide facilities for locking off kitchens, utility rooms, drug rooms and linen rooms. Elevator shafts and stairs must, of course, be guarded and should be outside the ward enclosure. The nurse's station should be so placed that she has a commanding view of the entire ward. Continuous baths are necessary on both the disturbed and semidisturbed sections. These baths should be equipped with automatic mixing valves which will prevent the temperature of the water from reaching the burning point.

It is not possible here to go into detail concerning all features of construction, and the above list must not be considered as more than a summary of the requirements.

Occupational therapy and physiotherapy can be employed to advantage in the observation ward, although prolonged use of these therapeutic agents is not possible as it is in the institutions for long-term care. Amusements, such as radios and moving pictures, are not particularly essential in the observation ward, because of the short stay of the patients. The question of amusements cannot, however, be entirely ignored in the quiet sections. This is probably true also of physical education, and is certainly true of ordinary exercise, the latter being necessary for every patient whose physical condition permits.

#### Psychiatric Staff Needed

One of the contributing causes to the inadequate care of mental patients in the past has been the dearth of physicians properly qualified in psychiatry. Needless to say, the head of the staff of an observation ward should be a medical man, skilled in psychiatry. He should have as many assistants as are necessary to handle the work of the department. Interns who have had some psychiatric experience are often used at the completion of their internship as residents in psychiatry, and in the general hospital it is customary and desirable to rotate the interns through the ward. A short service in psychiatry will, of course, never make a psychiatrist of an intern, but it is firmly believed that it will give him a sufficient understanding of and respect for the intricacies of this specialty to prompt him to seek

proper consultation when he encounters such cases in his practice.

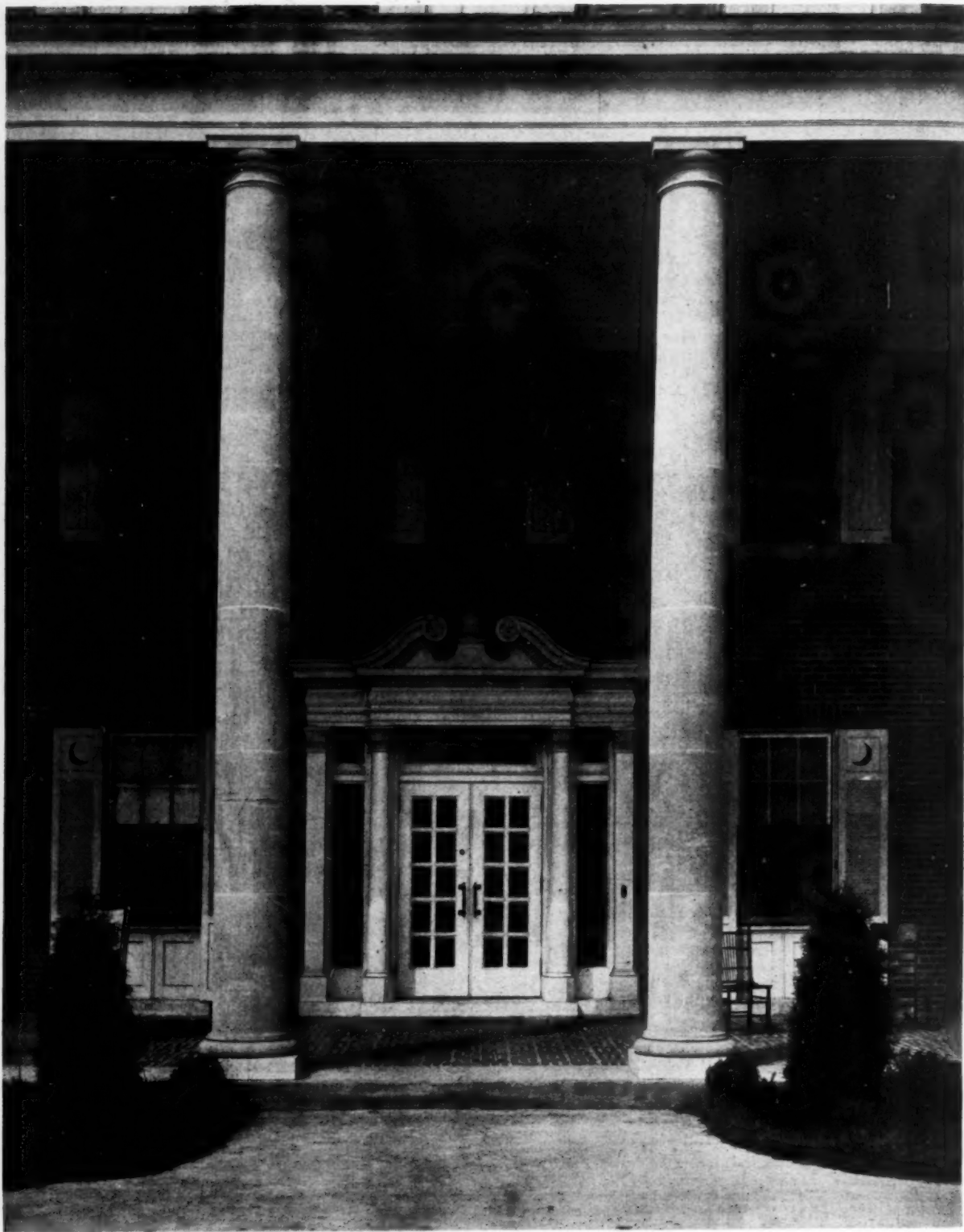
The services of one or more psychologists are necessary in connection with mental testing. As has been mentioned, social workers are indispensable to good psychiatry. In an active service, it would seem necessary to have one social worker to each twenty or twenty-five beds. These social workers must be especially trained for psychiatric social work, and only highly intelligent and capable persons are likely to be successful.

The occupational therapy may be handled in conjunction with that service for the rest of the hospital, but the work in this ward should be directly under occupational therapists trained to work with mental patients. The physiotherapy, excepting for the continuous baths which are found on the individual wards, may be in combination with the department which serves the remainder of the hospital.

#### Nursing Personnel Needed

The nursing staff of the department holds the key to success or failure of the work. There should certainly be a permanent head nurse for this section, and she should have had special training in psychiatric nursing, as should the ward charge nurses under her. It is considered important that female charge nurses be used in male as well as in female wards, although the subordinates in the male wards will usually need to be male nurses or male attendants trained for the work. In the female wards student nurses may well be used for such duties, for such periods as is consistent with their course of training. The value of a knowledge of psychiatric nursing is valuable to any nurse and should not be denied to her. The almost complete refusal of graduate nurses from general hospitals to register for mental cases is a deterrent to proper mental hygiene work, and it is believed that this condition can be corrected by proper presentation of the specialty to the student nurse.

Lest there be misunderstanding, it must be definitely stipulated that every general hospital cannot expect to maintain an observation ward. Hospitals serving small communities would not have enough cases or enough resources to handle the work properly. Large departmentalized hospitals, however, should seriously consider the matter. It is certainly true that public hospitals serving populations of magnitude are failing to do their full duty if, by avoiding the mental patient, they relegate him to the police station, the jail, or to direct commitment to a state hospital, without a period of careful observation under the care of competent persons.



*Covington Protestant Children's Home*

# Citizen Making in a Homelike Institution

By H. P. VAN ARSDALL

of Samuel Hannaford & Sons, Architects, Cincinnati

IN THE early eighties the late Amos Shinkle built and presented to the Covington Protestant Children's Home a substantial brick institution on Madison Avenue, Covington, Ky., in a district at that time entirely suitable for such an institution. With the passing years the encroachments of industry and business made it increasingly evident that for the best interests of the home a change in location was im-

perative. The trustees therefore acquired an acreage tract in West Covington, adjoining Devou Park.

Located on a rolling plateau extending northward into the north bend of the Ohio River, at an elevation approximately nine hundred feet above sea level and four hundred feet above low water in the river, the site commands a view for miles and miles up and down the Ohio Valley, overlooking the metropolitan district of Cincinnati and its suburban environs, and extending to the blue hills of a far distant horizon.

In the Fall of 1925 the trustees presented an appeal to the public for \$250,000 for a new building and equipment. The appeal of helpless childhood is irresistible, and the fund was soon oversubscribed and definite plans undertaken.

The building committee, after investigation of

other similar institutions and consultation with specialists, finally reached the conclusion that

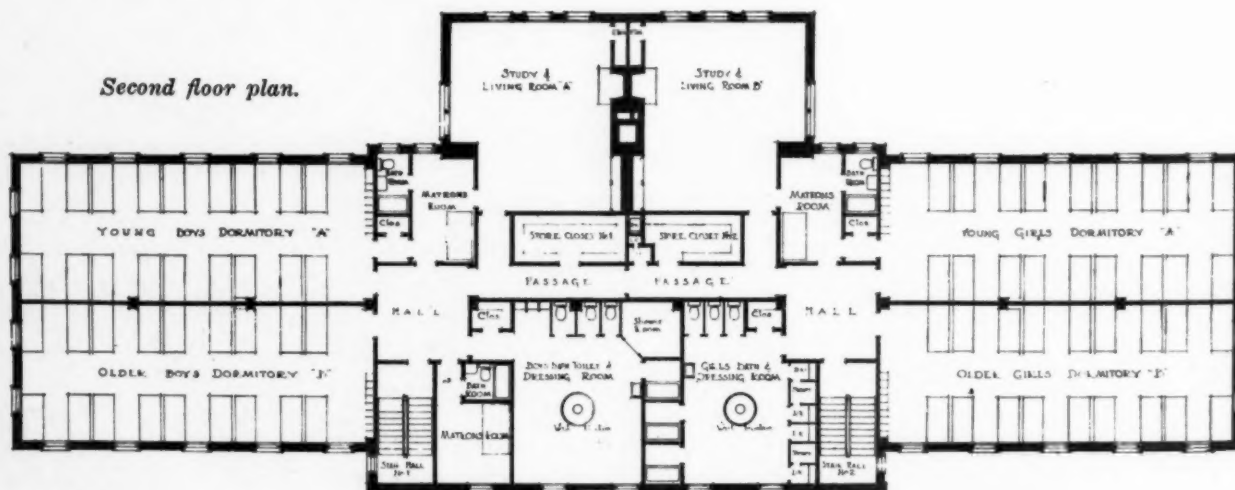
while, generally speaking, the cottage plan of building is preferable for larger institutions, the comparatively small number to

be accommodated in this instance, and the desirability of economy in operation, indicated the adoption of the congregate plan for the present, with the expectation of adopting the cottage system to provide for future expansion. To minimize, in-



sofar as possible, the institutional impression on the minds of the children, the building is of the distinctly domestic type of the southern colonial farmhouse. The accompanying photographs and plans clearly show that this thought has been carried out in the exterior design and in the arrangement and finish of rooms.

The exterior of the building has red brick walls, limestone columns and trim, and a roof of thick slate in variegated shades. The first floor entrance from the portico opens into a fair sized lobby, off which, on the right, is the library and, on the left, a waiting room and business office. The large assembly room, sufficient in size to seat 200 people, occupies the front portion of the west wing and in the rear is the superintendent's suite, consisting of living room and dressing room,

*Basement and foundation plan.**First floor plan.**Second floor plan.*

bathroom and bedroom. Adjoining are a meeting room and a dining room for the trustees.

The east wing houses the infants' dormitory, sun room, bath and toilet rooms, and matron's rooms and bath. The infants' bathroom has the tub placed upon a twelve-inch pedestal to facilitate the matron's work while bathing a child. The water closets are of the juvenile type, standing twelve inches high, with a seat in proportion. At each of the rear entrances a toilet and wash

The second floor is rather unusual in arrangement. The dormitories, study halls, and toilet and dressing rooms are completely separated for male and female, but arranged with a communicating door in the connecting passage for use of the matrons. Adjoining each dormitory and directly connected with each study hall is a matron's room and bath. The doors of the matrons' rooms are provided with observation panels for supervision. The dormitories have



*Covington Protestant Children's Home, Covington, Ky.*

room are placed for use of the children when entering the building from the playground. In addition, there is in each of the wash rooms a foot shower bath for bathing muddy bare feet and legs, a desirable and much used feature during the summer. The shower is constructed with a waterproof terrazzo basin, curb and wainscot, with the shower spray heads placed two feet above the basin floor. The same arrangement has been made in the basement wash rooms.

The central rear of the first floor is given up to the main dining room, the kitchen, the storeroom and the refrigerating machinery room. The two large stairs, one in each of the wings, extending the full height of the building, provide ample exits.

rubber floors with terrazzo base and borders. Where beds abut walls, a special terrazzo bed stop has been formed in the terrazzo base to prevent injury to plaster. The walls are of plaster, finished in light cheerful tints. Electric fixtures are of the twilight type, with each outlet equipped with seventy-five-watt lamps for general illumination and a four-candle lamp for use of the matron when the children are sleeping. Steel clothes lockers of the double deck built-in type are placed on sanitary terrazzo bases at the ends of the dormitories, providing an individual compartment for each child.

Each of the matrons' rooms has been tastefully treated with tinted walls, window drapes and suitable furnishings. The baths in connection

with these rooms have tile floors and wainscoted walls, with keyed-in bathtubs, vitreous china lavatories with glass shelves and medicine cabinet, and toilet.

The boys' and girls' bath, toilet and dressing rooms have terrazzo floors and plastered walls. The shower, toilet and bath compartments are

for medical cases has been provided. There are two wards, male and female, each containing three beds, with a common utility room, separate baths and linen closets, dumb-waiter service and airing terrace. Adjoining the wards are a properly equipped treatment room, isolation room and nurse's bedroom. Any sickness, except major



*The girls' dormitory.*

finished with marble wainscots and partitions. In the center of the room is a large sanitary wash fountain, accommodating twelve children at one time, and providing a pure supply of running water. This fixture has proved more desirable than individual washstands.

The large study and living rooms, so artistically furnished, have been not only a source of pride to the children, but a restful place for study. These rooms have polished, hardwood floors, and red gum wall paneling and trim. The woodwork has not been varnished, but has received a coat of stain, been waxed and then rubbed to a dull gloss.

#### Hospital Section on Third Floor

The third floor is taken up with the hospital section and servants' quarters. In a building such as this, where more than one hundred individuals are cared for, the inclusion of hospital wards is a necessity, especially when the occupants are principally children. Every facility

surgical cases, developing in the institution, can easily be cared for as well as in a general hospital. The remainder of the third floor is occupied with five servants' rooms and two large storerooms.

The basement needs little comment as the plan clearly shows its equipment and function. Commodious quarters have here been provided for the janitor. There are also large furniture and food storage rooms, a play room, a boiler room, a coal storage room and a well equipped laundry.

The home has now been in operation a sufficient length of time to prove the success of the plan.

The entire cost of the building and equipment amounted to \$199,600, or fifty and three-fourths cents per cubic foot. This building in one respect was different from many others: the original contracts amounted to \$199,600; no changes of any kind were made and there were no extras to pay for on completion. This is a somewhat noteworthy achievement.

# How One Hospital Calculates Portion Costs

By WILEY E. WOODBURY, M.D., WARREN JOHNSON, M.D., AND SARAH G. HICKCOX

Director, Assistant Director and Supervising Dietitian, Fifth Avenue Hospital, New York

**I**N AN effort to effect a drop in the curve representing the monthly subsistence cost figures at the Fifth Avenue Hospital, New York, the following five studies were initiated: (1) plotted curves of daily price quotations of raw foods; (2) plotted curves of weekly price quotations of raw foods; (3) a graphic chart showing the respective seasons during which fresh foods are normally plentiful enough, in New York City, to be purchased at a moderate price; (4) portion costs; (5) portion percentage waste.

It is the fourth of these studies, portion costs, with which this paper is primarily concerned. This subdivision of the work required a most meticulous investigation, extending over a period of two years.

The term "portion cost" as it is used here, represents the raw food cost, as nearly as we have been able to calculate it, of one serving, of one article of diet, to one patient. It is important to emphasize that the term "one serving" applies only to the method of serving pursued in this particular hospital, and would, in all probability, be slightly different from the quantity representing one serving in some other institutions.

## Based on Average Unit Cost Price

Our method of calculating the portion cost for one article of diet may be of interest to hospital officials:

1. Choose a definite unit of purchase for the given article, such as crate, barrel, box, basket, pail, bunch, dozen bunches, can, dozen cans, bag, bushel, pound, quart, dozen, pair or loaf. If the unit chosen is one which is not an exact unit, specify further its quantity or weight. Example: Crate, 176's; Bag, 150 lb.; Doz. cans, No. 10's; Loaf, 2 lb.; Lb., 40/50's.

2. Find the cost of the given unit.

3. Determine the number of servings that can be obtained from the given unit.

4. Divide the cost of the unit by the number of servings calculated, and the quotient will represent the cost of one portion.

The cost of the given unit is variable (in a

great many instances extremely variable), while the number of servings that may be obtained from the given unit is fairly constant in any one institution. In order, therefore, to have a portion cost figure with which we may work, it is obvious that it becomes necessary to develop a set of portion costs, based on the mean of the variable unit cost figure. This brings in the element of time, and we have found that an average unit cost price, based on the period of one year's variations, gives us the most practical working figure. Ideally, the portion costs would have to be calculated each day to correspond to the current prices, but this of course is out of the question.

## Cost Chart for Diet Kitchen

Accordingly, in making this study, it was decided to calculate the average portion costs for some one hundred and eighty-five common articles of diet, based on the unit cost prices for the year 1927. These unit prices were taken from our monthly subsistence reports. When the work was completed it was found that these average portion costs ranged from \$0.416 (squab) down to \$0.0016 (cocoa, and hominy). The articles of diet were arranged in eight separate sections, as follows: dairy products; fresh fruits; dried fruits; canned fruits; meats, fish, poultry; groceries; fresh vegetables; canned vegetables.

Each section was printed on a separate sheet of paper. It was found that there was difficulty, however, in visualizing the relationship of one article on one sheet to another article on a different sheet. To remedy this the plan was conceived of making a large chart on which the eight different sections, of articles of diet, should be presented as eight vertical columns, and the whole chart ruled horizontally to indicate portion cost levels. The individual items in each section were then sorted out and grouped according to their portion cost levels. The resulting chart (with the horizontal lines limiting the respective portion cost groups running completely across all eight sections), was found to show clearly the re-

lation between the items in different sections.

In order to make the chart as practical and useful as possible, seven vertical columns were drawn in each of the eight sections to show the following details: unit of purchase; average unit cost; quantity or weight of unit; average portions per unit; standard portion per patient; number of units necessary for serving 100 persons; average portion cost.

With the chart completed as described, the dietitian is thus equipped to make out her menus with all these data in compact and readily available form. By jotting down the listed portion cost for each item on her menu for the day (three meals), and adding these up, she arrives at a figure that represents the theoretical subsistence cost for that day. Of course, this will naturally be considerably lower than the actual subsistence cost, because of the unpredictable waste, second helpings and variations in unit costs. However, even these irregularities show some regularity, and the dietitian soon learns the approximate margin to be allowed for these variations. Thus she is able to get a fairly accurate idea of whether or not the actual menu she is composing is within the prescribed limit to which she is trying to make the month's subsistence cost figure conform.

In addition, the dietitian has ready information at hand, in column six, as to how many units of a given article she must order to feed a given number of persons. For example:

When the dietitian wishes to order string beans for 640 persons, she looks at column six, in the fresh vegetable section, and sees that the factor (representing the number of units necessary to feed 100 persons) is 0.8. To feed one person the factor would be 0.008. To order for 640 persons, she multiplies 0.008 by 640=5.12. This product represents the number of units of string beans necessary to feed 640 persons, that is,  $5\frac{1}{8}$  bushels.

### Prices Fluctuate

Of course there are many seasonal factors that influence portion costs. It is to counteract these influences that we maintain the curves of daily price quotations, and the chart showing the foods in season. The weekly price quotation curves are plotted because they show history much better than the daily price curves. Even small changes in the curves over a period of a month, show up well on the weekly chart, while on the daily graph they are analogous to the slow motion picture. Our study of waste, in terms of the percentage of waste per portion, is still in its embryonic stage. These data will be a valuable help in the control and checking of our garbage, by enabling us to compare our actual waste with the calcu-

lated waste from foods listed on the menu for the test period.

By the conscientious use of these five sets of plotted curves and graphic charts, we hope to effect a considerable reduction of our subsistence cost without in any way curtailing the quality or quantity of the food served.

## What Makes a Convention Successful?

The author of a recent article in a contemporary journal makes several suggestions by which convention committees might benefit.

The object of a convention is to give instruction or enlightenment on troublesome questions. The cost, both in time and money, of attending a convention is great. Therefore every effort must be made to give the maximum amount of valuable information to the delegates. In order to do this, conscientious thought and endeavor must be used in the planning of programs and engaging of speakers.

Eight important factors in the planning of a successful convention are the following:

1. Whoever has charge of program preparation, whether committee or individual, should think through and plan well into the future. Unless continuity of thought exists there can be no orderly sequence of convention programs, and much of their potential value will be lost. Programs, subject matter and treatment should be designed for logical sequence rather than in a haphazard fashion by which one program may bear little relationship to those that have preceded it.
2. For annual conventions, monthly meetings of the program committee are unnecessary, for even with the best personnel, committee members, intent on their own affairs, are not going to give the program the consistent thought that would justify such frequent meetings.
3. The major theme should be determined first, then subdivided to fit the number of sessions desired. Speakers should be selected for their ability to present a given subject. Little value results from fitting the subject to the speaker.
4. The program committee should be composed of men of broad vision, with an understanding of the problems of industry. Many otherwise good business men so concentrate on their own individual problems that they have little grasp of the broader views of these problems as they affect the entire industry.
5. The subject matter of each speaker should be carefully outlined so as to coordinate with the other topics, so that the program in its entirety will offer a complete discussion of all phases of the major theme.
6. Each speaker should be told his allotted time, and the convention managers should see that the meetings are started on time so that he may fully cover his topic without undue hurry or overlapping on the time of the speaker to follow him.
7. The program committee should work in cooperation with the other committees, for a great deal of the success of a convention lies in hearty cooperation.
8. All needless jokes, prologues, apologies and explanations should be omitted from the speeches. Let every speaker make his point as briefly as possible and then stop.

## One Year After

By ADA BELLE McCLEERY

Superintendent, Evanston Hospital, Evanston, Ill.

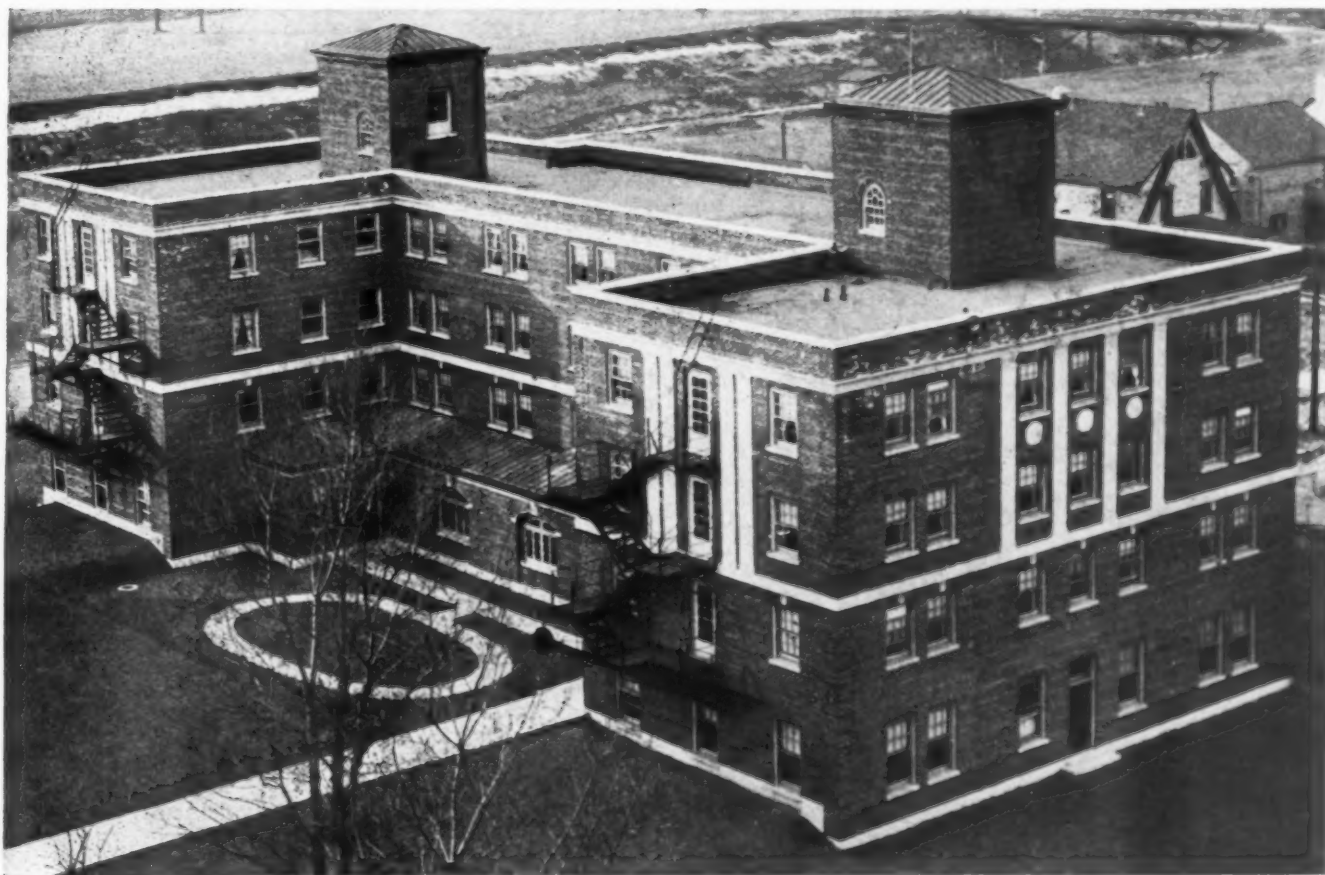
IT IS not unusual for me to be asked, "How did your employees' building turn out?" or "How does that cafeteria of yours work?" My reply is, "Come and see."

As I write, we look back over a year's experience under the new plan of giving our employees adequate housing and salary instead of food and salary. It was one day in the latter part of December, 1926, that all of the most undesirable living quarters, including attics and basement, emptied out their occupants. Singly, and in pairs, they made the short journey from the old room to the new. It must have seemed strange for them, that first night, to be each one in a room alone, each having his own closet and dresser, as well as a comfortable chair and a table at which to write a letter.

When Hendrey House was opened, we were confronted with the problem of room assignment. It was solved by giving those who had been in our

employ a year or longer choice by seniority of employment. Those having a record of less than a year's employment drew a room number by lot. In the first group there were only twenty. In December, 1927, fourteen of the original twenty were still with us. The six were encouraged to go elsewhere since it was possible for us to secure a better type of worker.

One of the outstanding advantages of the new house is that it makes it possible for us to choose the best workers in the vicinity instead of being thankful for any that we may get. The comfortable surroundings, the well cooked food, the recreational facilities and the air of sociability that pervades Hendrey House also make it possible to keep, as well as secure, only the "desirables." Here it may also be mentioned that the billiard room, the reading room and the general homelike atmosphere keep our help at home in the evenings, because there is adequate provision



Hendrey House, Evanston Hospital, Evanston, Ill.



*Above, the women's recreation room; below, the men's recreation room.*





Here is the cafeteria, which is used not only by the help but by the office workers and visitors to the hospital.

for amusement and rest, and it becomes unnecessary for them to seek diversion in the town pool room, the cigar store or at the street corners.

We have added to the original group of workers twenty-six, making a total of forty, with a record of over a year's employment. Another twenty-three have a record of at least six months, and twenty-five have been with us four months, making a total of eighty-eight with a minimum record of four months.

While it is of course important to minimize turnover among the help, it is vastly more important to secure just the right kind of help and, logically enough, by securing the higher type it naturally follows that the turnover will be brought down to its lowest point.

### Good Results Obtained

The benefits of the stabilizing of this group are shown in the increased pride they take both in their appearance and in their work, in the decrease in the amount of supplies used, the improvement in the care of the equipment, the raising of the minimum standard for the type of worker, resulting in the best help we have had for many, many years. We have a pride in them, as we believe they have in the hospital.

What do they do after working hours? Dance to victrola or radio music, play cards or checkers, pool or billiards, sew, wash and iron. In other words, they live a normal life of work, rest and play, each having its place.

The cafeteria is without doubt a valuable feature. Its cleanliness, its convenience and its economy made it an immediate success. While it was designed primarily for the maids, laundry workers, maintenance men and others of this

type, it quickly found favor with the office workers, some of the technicians, many of the visitors and others who have occasion to be at the hospital at lunch time.

The cafeteria in itself differs little from any cafeteria except that the prices are lower. We do not wish to make any profit, but we do try to make the cafeteria carry its own share of expense. The opportunity to have both variety and choice of food makes its own appeal.

The following financial report for the month of November, we consider fairly satisfactory:

EXPENSE			
<i>Salaries and Wages</i>			
Cafeteria .....	\$1,012.04		
General Kitchen Proportion.....	475.19	\$1,487.23	
<i>Foodstuffs Used</i>			
From Cafeteria Requisitions.....		2,002.33	
<i>Direct Expense</i>			
Miscellaneous Expense .....	\$ .55		
Supplies from Stores .....	54.93	55.48	
<i>Fixed Expense</i>			
Direct Depreciation .....	\$ 73.44		
Prorated Depreciation .....	34.98	108.42	
<i>Prorated Expense</i>			
Light, Heat and Power.....	\$ 23.59		
Administrative .....	99.11		
Upkeep and Maintenance .....	60.61		
Employees' Rooms—Hendrey			
House .....	238.04	421.35	
Total Cafeteria Costs.....		\$4,074.81	
Average Cost per Meal (12,241 meals).....	\$ .333		
Total Cafeteria Expense .....	4,074.81		
Total Cafeteria Income .....	3,929.18		
Loss .....		\$ 135.63	

# Health Education in the Clinic Promotes Better Health

By IAGO GALDSTON, M.D.

Secretary, Health Education Service, New York Tuberculosis and Health Association, New York

**I**N DISCUSSING health education in the clinic, I have set for myself the task not so much of persuading you of its desirability, as of laying before you in a historical pattern the reasons for its desirability and its significance in the present day practice of both therapeutic and preventive medicine.

To my mind, health education in the clinic and elsewhere, too, for that matter, becomes imperatively necessary in the light of our modern understanding of the nature of disease, its causation, and the manner of its treatment. This basic idea is perhaps nowhere better expressed than in that remarkable little brochure recently written by Dr. William Allen White, called "The Meaning of Disease." In this brochure Dr. White points out that the concept of what disease actually is has changed from age to age with our ever advancing understanding of the true nature of pathology. He further indicates that the value of our therapeutic procedure is proportionate to the validity and completeness of our understanding of the nature of disease.

## Early Ideas About Disease

Sketching it in broad strokes, the history of medicine shows that there have been in the past three major conceptions of the nature of disease. In early times disease was conceived as something of the devil's making. The devil or some kindred nefarious spirit was thought to have possessed the unfortunate victim, producing what was recognized as disease. Since, according to this conception, the devil or his ilk achieved an identity with the physical form of his victim, it was nothing short of pure logic to apply directly to the person of the sufferer, all remedies aiming to drive the devil out, even if these remedies were in the form of torture, flagellation or spell casting.

This conception of disease prevailed for a long time, far into the eighteenth century, finding its last stronghold in the then backward field of psychiatry. The end of this conception of disease may be said to have come with the great Philippe Pinel, who freed the insane from their chains.

The second major concept of the nature of disease was that recorded in the histories of medicine as the admixture of the humors. According to this conception, the human body was composed of certain fundamental substances known as humors. Health depended on a delicate balance of ratios between these humors. Disease, on the other hand, resulted when there was a dearth of some or a plethora of others of the fundamental humors. This conception, too, prevailed for a long time, and indeed has left its stamp upon our language, for we still say that we are in good or bad humor; and we still make use of the term melancholia, originally implying the prevalence of excessive black bile in the human economy.

Based on such a conception of the nature of disease, therapy had to aim at achieving "balance in the humors." Efforts were made by the physicians practicing this system of medicine to abstract from the body the excess humors, by bleeding, purging, cupping and the like, and to add the humors that were lacking through a primitive type of organotherapy. These two fundamental conceptions of the nature of disease run through the entire history of medicine and appear and reappear from time to time in a variety of forms, each differing from the other, but all in fundamental agreement on the essentials. Either disease was conceived to be the product of some evil spirit afflicting its victim, or else disease was begotten within the victim by a faulty admixture of the body's elements.

## Germ Theory Develops

The development of the modern germ theory of disease causation forced medicine to discard these barbaric ideas and to substitute therefor what at first appeared like the final and satisfactory explanation of what disease is caused by, and what its nature really is.

For nearly a half century the medical world remained content with this newer explanation. It felt secure in its position. Certain souls however, became troubled. It is true that neither devils nor humors produce disease. It is true that germs can and do produce disease. But, and this

was not granted at first, something beside germs is required before disease can be developed in the individual. What is that something, and what is its significance?

To make this problem real and easy to grasp, let us consider, in its light, the history of tuberculosis. It is well known with what enthusiasm the world greeted the discovery of the tubercle bacillus by Robert Koch in 1882. Here, at last, was the villain. Here was the culprit, the tubercle bacillus. Now we can watch him, now we can stay his murderous work. How? That was simple, we thought. Merely pass laws to forbid spitting; isolate the tuberculous individuals; destroy the tuberculosis germs wherever they are found, and in time there would be any more tuberculosis in the world. That seemed simple! But time proved our error. More than that, it proved the fallacy of our thought. Through the work of Von Pirquet and others, it was soon discovered that more than the tubercle bacillus was required to produce active tuberculosis. The Von Pirquet test showed that for every one sick with tuberculosis there were hundreds infected with tuberculosis. Careful autopsies on persons who had never shown a sign of clinical tuberculosis disclosed tuberculous lesions well walled in. It became evident that something more than the tuberculosis germ is necessary to engender active tuberculosis in adult man. What is that something?

### We Must Know More About Health

Modern medicine is giving an answer to this query, asked not only on behalf of tuberculosis but for scores and scores of other pathologic conditions. And the answer defines the nature of disease more clearly and completely than ever before.

Disease we now know is not an entity. It is an essence. It is not the product of any one force but is the sum total of a number of forces among which the individual's environment, understood in its broadest sense, perhaps counts for most. All our therapeutic procedures must take this conception into consideration, and if they fail to affect the individual's environment for the better, our remedy is at fault.

And how can we affect the individual's environment? This question has been answered for us in the ages past. The exhortations of the prophets, the preachings of the priests, and the pleadings of the reformers all tell us that education is a potent instrument for the influencing of the individual's behavior and in consequence, too, his environment.

Our present day knowledge of the nature of

diseases clearly indicates that we must teach our patients to cure them effectively.

Dr. Lawrason Brown in a recent conference held in New York City, speaking on the rôle of education in the treatment of the tuberculous, said that he looked upon the sanatorium as a sort of college where men and women were educated for a new method of living. If education is so essential to the effective treatment of the tuberculous, is it any less essential in the treatment of the cardiac patient or of the diabetic or of the renal patient? No. In the larger number of pathologic conditions no adequate remedy can be achieved without the education of the patient.

True as this is for all the phases of medical practice, it seems to me to be particularly pertinent to the clinic. For in the clinic we find a selected group, a group perhaps below the average in economic status, and in all that this condition implies.

### How Can Health Education Be Applied?

And now having presented in perhaps a somewhat elaborate form the reasons for the desirability of health education in the clinics, let us proceed to consider the concrete forms that this health education must take. In this consideration, we must be guided by our objectives. Our efforts must be checked against what we aim to achieve. And health education can be applied in the clinic for a variety of purposes.

First and foremost, of course, comes the type of health education that seeks to make the patient understand his condition, and that facilitates the interpretation of the physician's instructions and the prescribed modes of life and work. The second type of health education that can be profitably promoted in the clinic aims to promote better general personal hygiene and better health practices on the part of the patient. This education may be directly related to the individual's condition or may be a "gunshot attack." Then there is the type of education that seeks to promote more efficient operation of the clinic, the kind that urges the patient to return regularly to the clinic, to come punctually for his appointments and to follow instructions carefully. And lastly, there is the type of health education that is prophylactic in character and that makes use of the clinic as an avenue for the dissemination of health information, preventive in character.

Considering these matters more concretely, let us review the instruments of education we need and can make use of for these various purposes. No great insight or penetration is required to appreciate the usefulness of literature dealing with specific pathologic conditions. The tubercu-

losis clinic, cardiac clinic, diabetic clinic, venereal disease clinic, and the various other general and specialty clinics, can each use, with great effectiveness, literature which, simply written, effectively addressed, and carrying only the essential and incontrovertible facts, backs up and fortifies the patient's appreciation of his condition, and his knowledge of what he needs to do to improve his condition and to avoid complications.

### Select Literature Carefully

In certain of the specialty clinics we need not only a type of literature that deals with the general items, but also specific instructions. The cardiac clinic, for example, needs the kind of literature that will tell the patient precisely what he may or may not do in the line of physical effort. The diabetic clinic needs the type of literature that will help the patient to understand the dangers he is confronted by, and various others of the general and specialty clinics need the type of literature that tells exactly what the patient may or may not do.

In addition to literature, we can use in our clinics posters, charts, diagrams, photographs, stereopticon views and motion pictures. The individual who comes to our clinics, especially the one suffering from some chronic condition, is an individual who may be said to be sensitized to health education. His condition renders him particularly interested in the subject of health, and he is impressionable. We should exploit this predisposition on the part of our clinic patients to health education, and we should exploit it not only in their behalf but in the interest of the community.

In a large number of our clinics a visiting patient is obliged to wait from five minutes to an hour before his turn comes. In the majority of clinics such a patient sits staring empty-eyed about him, discussing his condition with his neighbor, or perhaps reading a newspaper or a frayed magazine. How much better it would be if the waiting patient could spend his time viewing posters, graphs, charts, photographs, or looking at stereopticon views or daylight motion pictures. Instead of the frayed magazine could we not supply him with attractive literature dealing with health matters? Could we not entertain him and render his wait less tiresome by showing him stereopticon views or even motion pictures?

The value of such efforts is too evident to necessitate much argument. Nor is this proposal completely novel. In various places and in varying degrees it has been tried and reports are universally in its favor. What we contemplate is instituting something on a larger scale which will

constitute the second important phase of health education in the clinic, to wit: the type that is essentially prophylactic in character.

We have been hearing a great deal about community health work in recent times and about the importance of the health center. There is universal agreement, I believe, on the desirability of such work and such centers. Whatever disagreement there is, centers about the definition. It seems to me that perhaps a logical exploitation of the community health idea would involve the clinic. The out-patient department of the hospital might be so operated that in a manner it would serve as the health center of the district. When clinics are not in operation, the out-patient department might be used for neighborhood group meetings, health lectures, motion picture exhibits and the like. Certainly, the out-patient department should render an information service, perhaps on a limited scale, to the people of the neighborhood. In general, it seems indicated as a desirable development, that the clinic instead of being only a place to which the lame and the halt go for cure, might become one for instruction and assistance in keeping well. And in this health education must play a large rôle.

### Sale of Book Ends Aids Hospital's Building Fund

In order to promote the building fund campaign, and to break away from the monotonous habit of appealing solely to one class of generous-hearted persons for support, William S. Sindey, superintendent, Bronx Hospital, New York, conceived the unique idea of circulating among possible contributors, a number of book ends, shaped as miniatures of that institution.

After many samples had been submitted for approval, four different finishes, gold, bronze, japan bronze and doric bronze were accepted. The model is about four inches high and six inches wide and represents exactly the appearance of the hospital.

These book ends were distributed to persons whose names were given by members of the board of directors, some handing in as many as 600 names. Lists of names were also turned in by members of the medical staff of the hospital, the ladies' auxiliary, and even by individuals who had received the book ends and liked them well enough to want them sent to their friends.

No price was set on these book ends, and the amount to be contributed was left entirely to the donor. The largest sum received for one pair was \$500, while some have sent in \$5. The total number of sets distributed so far is 7,000, and the average receipt per pair to date is \$15.65.

"One of the advantages of a campaign of this nature," says Mr. Sindey, "is that it is a 'perpetual motion' campaign, and will last as long as book ends are available." Another advantage is that the donor will have a reminder of his good deed before him, which will possibly continue his interest in the welfare of the institution.

## What I Found in the Hospitals of Europe—*Part II*

By LOUIS J. FRANK

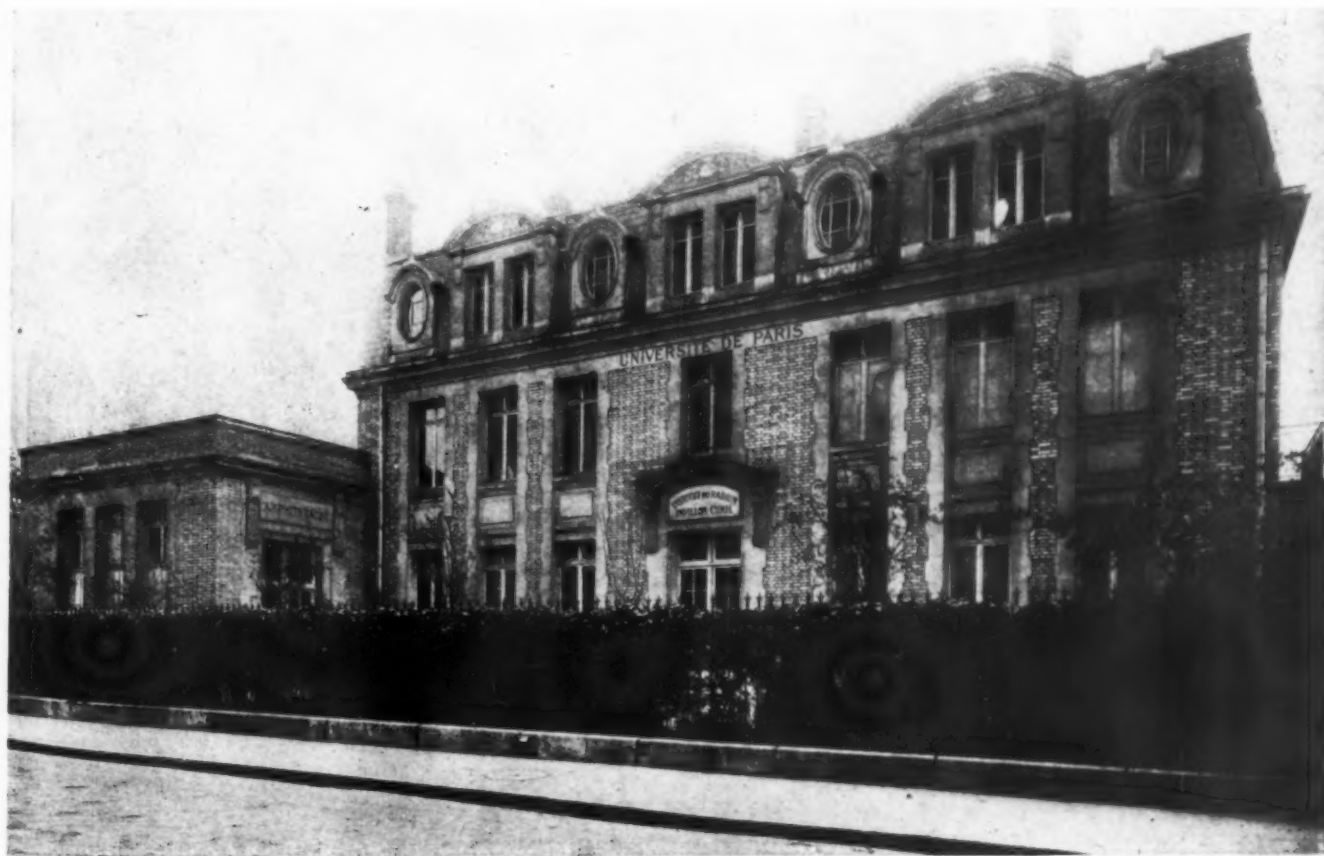
Superintendent, Beth Israel Hospital, New York

WE ARE now in Paris, the playground of the world. Most of the Parisians are out of the city; the place is overrun with Americans. Despite the poverty and the chaos, accentuated by the rush of tourists, there is a touch of gaiety which even the post-war depression cannot entirely crush.

*Pasteur Institute:* We go to see Professor Calmetti, who is an eminent bacteriologist and the discoverer of a tuberculosis vaccine, a medicine in pill form used as a preventive. Our Rockefeller Institute is modelled after Pasteur. It is devoted purely to research and the beds are filled with patients suffering from infectious diseases.

We meet Sir Almroth E. Wright, the famous doctor of London to whom we had a letter of introduction, who was out of the city during our

stay in London. We chat with this man of eighty who still goes to Pasteur in connection with his research work in septicemia. He holds radical views in respect to the clinician's position in medicine. He thinks that in the work of a hospital, laboratory men are all important and that the proper clinical work can be done only when the laboratory work is carried on at the bedside of a patient. He is opposed to the isolation of the laboratory man. After all, the purpose of the physician is to combat germs and who can combat germs more effectively than the laboratory man, whose life is concerned with this study? Wherever we go we find a unanimity of opinion concerning the correlation of the work of the laboratory and the clinic. The laboratory man must have a leaning towards the work in the



*The Curie Pavilion of the Pasteur Institute, Paris.*

clinic and the clinician must have an interest in the laboratory.

We visit the Curie pavilion of the Pasteur Institute and are locked in a room while waiting to be announced. We learn much here of a rather technical nature concerning rectified current and tubes. This busy institution is located appropriately in the vicinity of the Pantheon, in which are buried some of the great literary masters of France.

We visit the man whose position is analogous to our commissioner of public welfare. His department is in charge of all institutions in that city. We learn from him of the peculiar moral situation in regard to abortions, there being no restriction against this practice when it concerns foreigners, but a stringent prohibition when it concerns the French people. The work of the men in charge is done without compensation. In the morning they spend their time at the hospital and devote the afternoon to private practice. The director of this department appoints all the doctors for life, on condition that they attend daily. Doctors who are found exacting fees from patients are immediately discharged. The age limit is sixty-five years for medical men and sixty-two years for surgeons.

The private patient in Paris, as in London, is treated in the sanitarium instead of the hospital.

*Hospital Cochin:* This is an institution of 820 beds. Dr. Wedoll, the famous French internist is in charge. Dr. Wedoll attends in the hospital from two to three hours daily. The departmental divisions are: one for medicine, which includes pediatrics and neurology; one for tuberculosis; two for surgery; one for neurology; two for venereal disease. There is a consultant in eye diseases and no maternity section. There are eight resident interns.

*L'Hôpital de la Pitié:* Professor Vaquez, the heart specialist, takes us in charge. This is another of the many poverty-stricken institutions whose buildings stretch over miles of land. The director of the medical department has 160 medical beds. He has four assistants, each of whom is a chief of clinic: the chief assigns the assistants to various sections. The patients are frequently used merely as teaching material. The interesting cases are referred to Professor Vaquez, who attends to them himself twice a week. His salary is about 25,000 francs a year (about \$600). Professor Vaquez explains to us, that they do not isolate their typhoid cases, which is different from the practice prevailing in Germany, Austria and Hungary, where typhoid cases are treated like lepers. All autopsies are attended to by men of the service and performed only with the consent

of the relatives. Only special cases are autopsied. Of the 50 per cent of the autopsies asked for, 30 per cent are permitted.

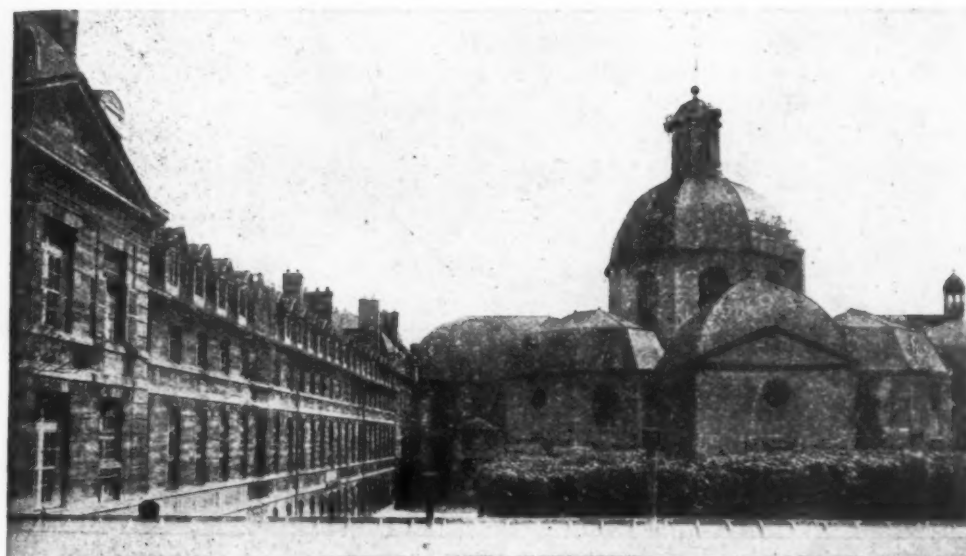
*L'Hôpital de la Salpêtrière:* Dr. George Loewy, in the absence of Professor Gusset, tours the hospital buildings with us. Professor Gusset, we are told, has under him 250 beds in the surgical department, and six assistants, each assigned to a ward of about forty-five beds. Rounds are made in the morning and at night. Dr. Loewy is a famous surgeon and we are especially interested in his methods of administering anesthesia. We learn that he does little spinal anesthesia, except in special cases, and prefers ether and localization. Dr. Loewy is kind enough to advise us on the purchase of special instruments and sterilizers.

The group system prevails in this institution. The French authorities are not blind to the efficacy of working together. Dr. Loewy takes us to the operating room where the walls are painted green, and extols the advantages of such an arrangement. We adopted green walls in our operating room approximately fourteen years ago. Dr. Loewy takes a great interest in the large Jewish hospital which we are going to open in the heart of New York. We see how gross specimens are photographed before dissections are made. He shows us, among other things of interest, his dog cages and their false bottoms. We learn that Dr. Mayo of this country had spent some time with Professor Gussett and Dr. Loewy but a short time before our visit.

*The American Hospital of Paris:* Dr. Fuller, the resident physician, takes us in charge. This institution is on the outskirts of Paris and has 130 beds. Two-thirds of the beds are devoted to the medical department, and one-third to the surgical. The application of a patient is referred to the out-patient department, and the patient is seen by Dr. Fuller. If the case is urgent, the patient is admitted immediately; if not, and the patient is able to pay, he is referred to a doctor practicing in the city. Otherwise, treatment is rendered without charge in the out-patient department. Dr. Fuller determines the service to which the patient is assigned. If there is any question of doubt, the patient is assigned to the medical department. American patients from various countries are housed here. The resident physician has no administrative duties similar to our house doctor. He merely prescribes for patients in the hospital.

This hospital is constantly filled. At the time we were in Paris, there were 50,000 resident Americans in the city, besides transients. Surgery by French doctors is on a par with our own. They have a technique as facile and as proficient as any demonstrated in America. The chief of

*L'Hôpital de la Pitié,  
Paris.*



*L'Hôpital de la Salpê-  
trière, Paris.*

the surgical department is Dr. de Martel. He responds to calls night or day, and brings his own assistants, who always work with him as a well organized team. In cases of emergency, the interns of the hospital are used. When the chief surgeon leaves for his vacation, the service is given to doctors approved by the board of managers.

The medical department includes pediatrics, dermatology, metabolism, in charge of two Americans and one Frenchman; a nose, throat and ear department, over which three men are in charge; a urology and neurology department, with one man in charge; an eye department, with two men in charge. The obstetrics and gynecology, dental, orthopedic, radiology and radium departments each have one man in charge. Dr. Fuller is in charge of the out-patient department, both wards and emergency cases, but only of free patients. The interns who are on service one year, make rounds regularly and report to Dr. Fuller. All the interns are selected from graduates of American hospitals. During the year they spend four months in the hospital and eight months in clinics.

A spirit of good cheer and bonhomie prevails in this Parisian institution, which is not at all unpleasant. Smoking is permitted throughout the building, including the wards. The patients, the doctors and the visitors all smoke freely. The institution stresses physiotherapy, and has a complete outfit for water and electrical treatments. The use of static is encouraged only to a limited degree.

Professor de Martel, whom we call to see at his home, has his own private institution of 300 beds. He is a general surgeon and refers urological work to urologists; it is his conviction that urology is a distinct specialty for urologists, who are in a position to make better diagnoses. He believes that there ought to be, first, a diagnosis by a urologist, and that the actual technical work whenever necessary should be performed by a competent surgeon. Professor de Martel, who upon introduction announces himself rather naively as "Ze French Mayo," talks to us concerning our plans for instituting a urological department and listens to our ideas eagerly. Professor

de Martel believes that the family physician and the diagnostician ought to attend all operations being performed on their patients, and that post-operative cases should be referred back to the family physician. He believes in spinal anesthesia in selected cases, but does most of his work under local anesthesia with  $\frac{1}{2}$  per cent novocain.

He operates on tumors of the cord under local anesthesia, with the patients sitting and conscious.

*Rothschild Hospital:* The capacity of this institution is 140 beds. It is in charge of six post-graduate students and the visiting staff consists of a surgeon, a gynecologist and a medical man. Conditions in this institution are extremely poor. Nursing babies are kept in the same wards with the mothers. The delivery room is not sound-proof. The buildings are widely separated and a visitor gets the impression that chaos prevails, which not only affects the employees of the institution, but, what is more tragic, the patients as well.

We meet Dr. Max Roseberry, formerly with Mount Sinai Hospital, New York, who confirms our impression as to the essential difference between the European hospital methods and our own. In France there is lack of organization; the doctor in charge is a king, and there is an extraordinarily large amount of paper work done. Dr. Roseberry feels that it would be well for physicians to show a more humanitarian regard for the feelings and health of their patients.

He also stresses the importance of the correlation of the work of the clinician and the laboratory man. While clinical indications disclose the general type of disease—meningitis, dysentery or pneumonia—only laboratory methods can suggest the effective therapeutic procedure to be pursued. Dr. Roseberry is emphatic in his statement that a doctor must be essentially human. He feels that a system of full-time men is desirable.

*Resumé of the Paris Hospital Situation:* In Paris the hospitals, built on the pavilion plan, are by no means as efficient or even as clean as one might expect a hospital to be. The caliber of the nurse is decidedly inferior to our own; Parisian nurses are awkward, often slovenly, and we have seen them carry their long loaves of bread hugged tightly against their dirty aprons, cutting off slices and carelessly distributing them among the patients.

The doctors are beginning to regard their patients with a kindness which is not only admirable for its effect upon the patient but also promotes better medical and therapeutic work.

The equipment of the Paris hospital is of a higher standard than that of the institutions in

London and Germany. The French institutions are more sensible in their treatment of typhoid cases; they do not mercilessly isolate these patients. If they are slovenly, it is not because they do not realize the grave offense of unkemptness in a hospital, but because they are powerless. Poverty has reached its long fingers over this section of Europe, and we find the patients and doctors undergoing many inconveniences and hardships. The French do a prodigious amount of research work. They are expert surgeons, armed with a technical proficiency that matches the surgical ingenuity of some of our American experts.

### Brussels Hospitals

The city of Brussels is like a morgue. Business is at a standstill. We are only too glad to rush through this dismal metropolis.

In all European clinics we find the outstanding feature to be the group work. In Brussels, for instance, a separate tumor division consists of a surgeon, a medical man, a radiologist and a pathologist, who work together on every case of tumor, malignant and benign. In all the clinics abroad there are representatives of each department.

*Bergmann Hospital:* We are conducted through this institution of 500 beds by Dr. Paul Govaerts, who is one of the professors. This institution, which is famous for its cancer work, has three medical departments, including neurology. There is also provision for a teaching department, with paid professors, a research department with full-time men, and a department for general medical and surgical work. There are two resident physicians, one medical and one surgical, who cover the hospital and do emergency work in the absence of a chief. The fourth year men (undergraduates) give anesthesia. Dr. Govaerts, who has been in America often, approves of our methods as the most feasible. The vision of a skyscraper hospital, with separate rooms adequately equipped, provokes his praise. We discuss the New York hospital situation with him, and he tells us that he regards the Presbyterian Hospital as the best in the city for teaching and clinical work. He opposes the arrangement which calls for full-time men who are completely wrapped up in a single institution, and feels that a doctor should have private practice in order to avoid being warped, but should not devote more than 15 per cent of his time to it. The remainder of his time should be devoted entirely to the hospital.

We make another visit to the Bergmann Hospital to confer with Dr. Murdock, the director of the department of radiology. Dr. Murdock is the

May,

diagn  
his op  
the s  
All tu  
men  
for th  
ence  
instit

Mu  
tient.  
stand  
the  
charg  
depart  
day,  
Muro  
not e  
look  
the m  
the c

Co  
has l  
but  
even  
ferer  
meap  
no b  
The  
but  
zone  
bad  
univ  
ing  
mar  
adm

Di

Ar  
expe  
Hosp  
patie  
as p  
or t  
"I  
Good  
born  
testi  
cedu  
a w  
med  
disc  
of  
cord  
him  
the

diagnostician of the department, who synthesizes his opinion with those of the other chiefs, namely the surgeon, the pathologist and the biochemist. All tumor cases are referred here and these three men, with their chiefs, decide what should be done for the patients. We are glad to sense the presence of a wholesome, humane atmosphere in this institution.

### The Technique of Specialties

Much time is devoted to the needs of each patient. The strictly specialty cases, such as for instance larynx cases, are sent to another part of the building where otolaryngologists are in charge. Dr. Murdock works in the out-patient department three times a week and gives one half-day, the entire forenoon, to the hospital. Dr. Murdock feels that one-half of a doctor's time is not enough. The doctor should have the right to look after his own cases in the hospital but not the right to treat outside patients, except with the consent of the authorities.

Conditions in Brussels are deplorable. The war has left in its wake not only a material desolation but a spiritual disconsolateness that creeps out even in the few brief hours in which we held conference with the doctors. The men are paid meagre salaries by the medical school. There are no blood transfusions because of a lack of donors. The authorities are opposed to the ward system, but are helpless. All patients in Brussels are zoned and paid for by the city. On account of the bad financial conditions of the municipality, the university recently curtailed its work. Considering their handicaps the hospitals are doing remarkable work. Their courage is to be greatly admired.

### Disability Rating Made on Discharge of Patients

An article in a recent issue of *Survey* tells of a unique experiment which is being conducted in the Buffalo City Hospital, Buffalo, N. Y., in the plan of giving every patient discharged from the institution a disability rating, as permanent total, temporary total, permanent partial or temporary partial.

"Like most of our procedures," says Dr. Walter S. Goodale, superintendent of the hospital, "this one was born of experience. We are called upon often for court testimony, particularly in compensation cases. Court procedures mean a great loss of time and convenience. As a way out, I hit upon the plan of detailing our assistant medical superintendent in charge of the admission and discharge department to examine all patients at the time of their discharge, noting carefully the conditions recorded by the various specialists. This procedure gives him a complete bird's eye view of the case, from which the assistant medical superintendent records the kind and

percentage of physical disability in a brief abstract in affidavit form. In about 80 per cent of the cases we have found that this affidavit will be accepted in court as medical testimony, without the presence of the affiant."

The information thus correlated has been found of benefit to public and private welfare organizations interested in a particular case, and constitutes a sort of efficiency record giving the hospital itself a picture of what it has accomplished. Responsibility for tabulating the disability returns rests with the social service department, which is under the charge of a director and four associates, who are nurses, graduates of the hospital itself, with special postgraduate training. They do no field work, but interview every patient in the hospital, and act as a steering committee to guide to the appropriate public or private agency those who declare themselves in need of assistance.

The local compensation committee has indorsed the policy concerning clinical records, which are considered confidential and are not submitted to persons outside the institution except on court subpoena, and the method of presenting in court abstracts that give the pertinent outcome in the case of any particular patient.

### When Spending Means Saving

A report of Dr. Ellen C. Potter, formerly secretary of Welfare of the State of Pennsylvania, in a report to the governor of that state, told of the causes of waste found in the food departments of different state institutions.

Of the many instances cited was one where oatmeal had been served both for breakfast and dinner every day of the year. Nearly half of the cereal prepared was thrown out, and the only explanation for the continued serving of that product was that it was cheaper than other cereals. The administrator had not considered that the dissatisfaction of the patients had not only contributed to this waste, but caused a feeling of general dislike for the institution itself. With the purchase of a variety of cereals it was not only found that the patients were better satisfied, but the amount of waste was reduced to nearly nothing, and the result was economy.

Another instance was the serving of solid foods to patients without teeth. The food was well prepared and appetizing, but was wasted because the patients could not chew it. In a case like this, the patient loses in health, and the institution has the additional expense of rebuilding a neglected body. Inefficient help and the absence of intelligent supervision can be blamed for this condition.

In one instance four poorly paid persons were employed to do the work which one well qualified person could have done. The aggregate salaries of the four amounted to twice as much as the salary of one qualified person. In another institution twenty-one young, inexperienced persons were replaced by eight qualified adults, with a saving of \$150 a month on salaries, plus the saving on maintenance of the additional thirteen. This arrangement also released living quarters which were in demand.

A poor cook was employed in one institution. The waste in garbage amounted to one-half pound per capita. A new cook was employed at a higher salary, but the increased salary was more than compensated for by the reduction in waste of food.

The failure to employ qualified help and the failure to weigh, measure and inspect all foods delivered constitute the greatest source of financial loss to an institution.

# What Constitutes Modern Hospital Service?\*

By HENRY K. MOHLER, M.D.

Medical Director, Jefferson Hospital, Philadelphia.

**I**N THIS great commonwealth, whose population is estimated to be in excess of nine millions, we are intrusted with the administration of 415 hospitals, the veritable theatres of life and death.

We plan and provide for the care of the sick and injured throughout the twenty-four hours. Our program includes facilities for the study and prevention of disease, the education of nurses, the fifth year of instruction for interns and provision for social service. We must be quick to appraise new methods and to pass sentence upon obsolete and less useful procedures. How can we do justice to these responsibilities unless we are familiar with the experiences and ideas of our sister institutions?

Our problems are numerous and varied. Some are new, others are of a more chronic nature. Suffice it to say that many are common to all.

If the information possessed by each one here on many difficult problems, could be pooled and made public during these sessions, what a wealth of knowledge we should possess and how much better we should be able to serve our hospitals.

## Hospitals Become More Complex

Hospital administration is becoming more complex as the hospital widens its sphere of usefulness. Additional activities carry with them new problems and there is need for information as to the experience of others on like matters. If the knowledge and assistance that can be obtained from those engaged in similar fields of endeavor are important, then no better opportunity is afforded for the interchange of ideas upon matters that affect hospital efficiency than the annual meetings of the Hospital Association of Pennsylvania.

No one will question the value of organization. The most successful enterprises in existence are those that are thoroughly organized. Hospitals have many groups of professional workers who have, in some instances, more efficient organization and better crystallized views than have hospital administrators. This situation, in so far as hospital administrators are concerned, must be

improved and the responsibility of remedying this condition lies at our doors. We must be able to give counsel to our boards of trustees on what is generally accepted as good hospital practice, if the best interests of the hospital are to be served.

## Problems Hospitals Must Face

The following are some of the outstanding problems that confront the hospitals today:

First, fostering the proper relationship between the hospital and the public, and in this way helping to educate the public mind regarding the amount of erroneous and incorrect information that has been broadcast during the past year concerning what is termed the excessive cost of hospital service and their poor business methods.

The second problem is that of giving proper medical service at less than cost to people of moderate means.

The third important problem is the study of ways and means to balance the budget so that it will meet the increasing demands made upon the hospital by the physicians and the public.

Large corporations are constantly emphasizing the importance of a public relations department, which has to do with acquainting the public with their successes, difficulties and problems. The information is spread by what is ordinarily termed publicity. Publicity is to be had in many different ways and is of favorable and unfavorable types. Human beings are quick to call attention to failures and omissions and, while not lacking in appreciation, too infrequently do they broadcast their recognition of real service, often rendered under great difficulties, unless some organized effort is undertaken to accomplish this.

Hospitals should recognize the excellent beginning that has been made in establishing May Twelfth as National Hospital Day. Proper observance of this day will be of immeasurable help in creating favorable impressions of the hospital. If, through publicity, men are enabled to secure favorable consideration, at least for a time, of some cause without merit, then, surely, standard hospital service, through organized publicity, should for all time come to be properly appreciated and supported.

\* Paper delivered before the Hospital Association of Pennsylvania, Pittsburgh, March 27, 1928.

The relation that the hospital bears to its community largely determines its usefulness. Fostering community relations is the object of National Hospital Day, and it is evident that the publicity accorded hospitals, often with little help and cooperation on their part, is resulting in greater appreciation and understanding of hospitals by the public.

Let us not forget that while May Twelfth is the day set aside for National Hospital Day, every day in the year should be graced with the same hospitality in our relations with the community.

The hospital, as the public expects, is in readiness day and night to care for cases of illness and accident. No community should be satisfied with less than this. The public is also entitled to know how this service is maintained and should be informed that without public help it cannot progress and grow. The improvements in hospital service that we are enjoying today are the result of time, money and thought given in the past, and further progress depends upon our present deliberations and conceptions of what the hospital service of the future should be.

It is true that some prominent newspapers and magazines have printed articles setting the hospitals before the public in an unfair light. Hospitals can be of great aid to newspapers; newspapers can be most helpful to hospitals.

Just as big business has, during the past decade or two, come to the conclusion that it is best to be friendly with the press, rather than antagonistic toward it, so, today, the hospital should seriously consider a public relations policy, for its relations with the public are generally through the newspapers.

### Cooperate with Newspapers

Many things take place in a hospital that the newspapers would like to print, and that can be printed without violation of the ethics of the medical profession. There are annual reports, visits of distinguished medical men, nurses' graduation exercises, donations, requests for blood donors, special gifts or other aid.

The medical profession, because of its code of ethics, has, in many instances, antagonized the press. There is no need for such a condition; the press and the medical profession should be on the most friendly terms.

This is particularly true of the hospital and the press. The press, initially, seeks friendship with the hospital; it is to its advantage to do so. Too often, however, the proffered friendship is rudely rejected.

Some few hospitals, realizing the rising cost in the application of modern medicine, have given

publicity to their work in a small way, so that the community would understand their problems. The effect has been to offset an impression that hospitals are extravagantly conducted and are not in accord with modern business methods. While some few hospitals are not as efficiently managed as they might be, a hospital so conducted cannot endure long.

Pennsylvania can justly be proud of its hospitals. They have received a high rating by the national organizations who classify hospitals according to their efficiency. This, in many instances, is due to the financial aid appropriated by the Legislature of Pennsylvania to hospitals, based on the free service rendered by the hospitals.

### State-Aided Hospitals One Solution

The greatest blessings to mankind are good health and long life. Modern medicine has been able to increase the span of life and to promote good health, and in this work, the hospital, which is the laboratory and workshop of medicine, has played an important rôle. There are those who criticize state subsidy to hospitals. If the state is warranted in helping to build roads, is justified in helping education, is engaged in improving agricultural methods, then it is in duty bound to render every assistance to its deserving citizens to maintain and regain their health and to prevent illness and accidents, so that they may enjoy good roads, benefit by their education and be able to carry on successfully in agriculture.

To its citizens, the Commonwealth of Pennsylvania renders no greater service than the making of appropriations to hospitals, based upon service rendered. By so doing it permits the individual living in distant or less densely populated sections of Pennsylvania, if unable to pay, to receive treatment in the larger state-aided hospitals.

Again, some of the poorer sections of Pennsylvania enjoy better hospital facilities than would be the case if they had to depend on local resources, which would be too meagre in many cases to provide for their needs.

Rural hospital accommodations are not as pressing a problem in Pennsylvania as in some other states, due to the appropriation by the Legislature of the Commonwealth of Pennsylvania for this purpose.

The fact that many hospitals do not have any endowment funds, or have but small endowment funds, only proves that organized effort has not been made by the hospital to obtain these. Would manufacturers sell great quantities of their products if they did not advertise them? Would candidates for election be successful if but few people knew of their aspirations to office?

It is true that few hospitals have at any time invited the citizens in their community to name the hospital as one of the beneficiaries in their wills. Individuals will not complain and certainly cannot be offended by receiving annually a dignified invitation from the board of directors of a hospital, setting forth their needs and requesting aid now or later, in the form of a gift or bequest by will.

This solicitation of bequests and endowments for hospitals in Pennsylvania is a fertile field and has not generally received the attention and consideration that it merits.

### Hospital Charges Not Excessive

A hospital stay today entails considerably more than three meals a day and a bed, medicine and nursing. In addition, must be considered numerous other items of expense, such as the cost of delicate surgical instruments; the services of anesthesiologists; the cost of the anesthetic, ranging from five to ten dollars an hour; the various chemical examinations of the blood, which are time-consuming and require skilled workers for their execution; innumerable x-ray examinations; maintenance of social service departments, pharmacies, dietary departments, ambulances, departments of physiotherapy and of radium therapy, special departments for study of basal metabolism, heart diseases, bronchial asthma, diabetes and numerous other diseases.

The greatest economic loss today is caused by illness and accident.

The public has been discussing the high cost of hospital service and has called for an explanation. During these sessions we shall have before us the question of whether hospitals are overcharging. A complete analysis of the situation from a national standpoint should yield information which, if used as publicity, should help to inform the public that hospitals are not charging for their services as much, by comparison, as is charged for other commodities and service.

Every hospital administrator knows that hospital charges are not excessive for the services the patient receives, and that the charges are not governed entirely by the hospital. It is true that the cost of the service may be in excess of what the patient can readily afford. The cost of items that enter into the service of the hospital are beyond its control. Coal, buildings, labor, (skilled and unskilled), food, drugs, apparatus, linens, cotton, laundry supplies, cost the hospital no less than they cost consumers of like size in other businesses.

How then, shall we provide adequate service for the middle class that will be satisfactory to

them? My suggestions are not new or original, nor will they fully solve the problem.

First, new hospitals or changes in hospitals should be carefully planned by those who have had considerable experience, with the view of building a structure that will not be too costly to operate and maintain.

Second, the hospital should not permit the services of a graduate nurse to be monopolized by one patient, but should provide group nursing.

Third, the charge for medical attention and special tests, including laboratory and x-ray examinations, should be limited.

Fourth, the hospital should solicit endowments, the income of which should be exclusively applied to keep charges within the reach of persons of moderate means.

Fifth, satisfactory types of insurance should be provided or funds, such as Christmas savings funds, should be established to defray expenses during illness and accident.

Illness and accident in many instances are more expensive in the home than in the hospital. Professional nursing and medical care may be less expensive in the hospital than in the home. The modern home is not, and cannot be organized to give modern medical and surgical care, without considerable expense.

The administrator of a hospital frequently has an opportunity to influence opinion with regard to changes in existing hospital buildings or new buildings. Under such circumstances it is wise to give careful consideration to the effect that the changes may have on future expansion of the hospital program. Hospitals should avail themselves of facilities offered by the American Hospital Association, which has a wealth of experience and information on all matters pertaining to hospitals.

### Hospitals Should Be Health Centers

The services of able hospital consultants are available and should be taken advantage of when changes or additions to hospital building are under consideration. The opinions and suggestions of these consultants are valuable and often effect considerable savings in space and in initial capital outlay, not to mention reduction in the subsequent cost of operation.

The hospital should be the health center of the community and should be the common ground on which the physician, the health agencies and the public, meet. Every effort along these lines should be encouraged by the administration of the hospital which has for its object the effective co-operation of other health and social agencies through the hospital.

# Shall a City or County Hospital Charge for Service?

By WALTER E. LIST, M.D.

Superintendent, Minneapolis General Hospital, Minneapolis, Minn.

**D**URING the past few years we hear with ever increasing frequency the terms "state medicine" or "socialization of medicine" and other kindred phrases relating to the broadening aspect of public health service to the community. The mere fact that this discussion is becoming more pronounced is, in itself, an indication that people are giving more and more thought to this important subject.

When we consider the two greatest assets of citizenship—good health and good education—we must wonder why public education has been placed foremost in the ranks of public service, rather than public health. Shall the opportunities for public health be restricted? Or, shall every effort be made to give this service to people who are in difficult financial circumstances, so that they may again return to early productivity, thereby becoming a more valuable asset to the community?

Public hospitals today cannot stand by the early ideas pertaining to legislative acts that provide that only indigent and poor people shall be admitted to hospitals. They must conform to the new ideas of service to the people. If one should try to secure a definition of the terms "poor and indigent" from the city legal department relative to public hospital admissions, one would soon learn that this cannot be done.

## Who Are the Poor?

The all-important question that arises regarding admission of patients to a city or county hospital is: When is an individual poor and indigent?

We can name the five major causes of poverty as sickness; unemployment; low wages; old age; delinquency.

With a well organized social service department every applicant must be considered on his individual merits, and no set standard can be followed. However, consideration must be given to the following factors:

1. Fluctuation in income: (a) Employment steady? (b) Wage constant? (c) How long at present wage?

2. Number of dependents—children, relatives, wholly or partially dependent.

3. Which member of the family is the patient? (a) Breadwinner—Any sick benefit? (b) Mother—Must housekeeper be hired or must children be boarded out or will relatives care for them?

4. Nature of illness: (a) Probable length of time sick; (b) expensive operative care needed; (c) chance of permanent disability.

## How Charges Are Determined

The following may be considered as a basis for determining charges, although different locations have varying conditions that may determine the final judgment. While these charges are reckoned to include the hospital cost per day, they should never be in excess of that cost, and charges for professional service should not be made.

A single man or woman is ineligible only if his or her income is above \$105 per month; graduated charge from \$70 per month.

Man and wife, ineligible at income over \$120 per month; graduated charge from \$100.

Man and wife and one child, ineligible at income over \$130 per month; graduated charge from \$105.

Man and wife and two children, ineligible at income over \$140 per month; graduated charge from \$110.

Man and wife and three children, ineligible at income over \$150 per month; graduated charge from \$115.

The following fundamental premise remains: No public hospital should accept patients who can afford the services of a private physician in a private hospital. The utmost discrimination is necessary, and with the many borderline cases applying for hospital service it requires at times the wisdom of Solomon to make a decision.

It is frequently stated that we must not pauperize people. By making charges in accordance with the patient's ability to pay we get away from the supposed attempt to make people less self-reliant. By making charges we also make the patient realize that he has incurred an obligation that should be paid, if not at the time of his dis-

charge from the hospital, then at some future date. Bills should be rendered at regular intervals, and the patient should be followed up and finally referred to the city legal department for collection of his account, should this become necessary. I believe that every patient discharged from a public hospital should be given a bill at the time of his discharge, even though the bill be only ten cents a day, for each day of hospital service rendered. This practice has an educational influence over the mind of the individual that can be gained in no other way.

Individuals and groups in some communities are continually discussing the question of the eligibility of applicants, from a financial standpoint, for public hospital service. The question must gradually answer itself, and only time will bring forth the solution of the problem in full.

It would be interesting to have a further discussion upon the following questions: (1) Should a city or county hospital charge for service rendered? (2) Is it possible to set up economic standards to govern the admission of patients to a city hospital? (3) Should private hospitals accept only the patients who can pay the full cost of hospital service and eliminate free bed service? This applies only to a community with a city hospital.

These and other questions are becoming more troublesome as time goes on and a general discussion would prove of value to the hospital world.

### Establish System in Handling Linen

Carolyn E. Davis, superintendent, Minor Hospital, Seattle, Wash., in an address to the American Protestant Hospital Association, made the following remarks relative to the purchase and care of linens in a hospital:

"Linens and their upkeep take a heavy toll from the household budget. The amount of linen required for circulation in a hospital depends upon the per patient allowance and the number of times the laundry is done in a week. Hospitals having their own laundry plant need less linen, as it is possible to obtain the amount needed on short notice. However, it is not advisable to use linen before it has had time to be well aired.

"In purchasing linen, a standard size in a well known, good grade of material should be obtained, using name woven goods whenever possible to prevent loss. The rest should be marked with the name of the hospital and the date of issuance, placing these markings in a prominent place.

"After issuance, every piece of linen should be followed in order to determine whether it is being worn out or washed out. Approximately one-half the wear is normally lost in washing. If more than this is lost, the washing soaps, bleaching and stain removing agents should be tested for the possible cause. If possible it is advisable to have a central linen room, where linen is

sorted, and distributed only upon a requisition that states the number of patients for whom the linen is required. Allowance should be made for a few extra pieces daily for emergency cases. This will save much irritation and avoid many trips back and forth. However, any surplus should be collected regularly to avoid hoarding by members of the personnel.

"A system of inspection for torn linens must be established, preferably while the linen is being handled in the laundry. It should be taken directly to the linen room for mending. Some provision should also be made for replacing torn linens, otherwise the nursing service will suffer a shortage.

"Enough blankets should be provided so that the nurses will not be forced to use good woolen ones for treatments. Nearly all pieces too much worn should be turned in to the linen room where they can be made over into other useful articles. Sheets, spreads and pillow cases can be made over into going home binders, sterile goods, poultice backs and smaller bed clothes for the nursery. From worn out blankets can be made pneumonia jackets, foot warmers, stupe and fomentation clothes or smaller blankets, and towels make excellent wash or cleaning cloths."

### Bringing Health to the Health Bringers

St. Luke's Hospital, St. Paul, Minn., has taken steps, according to Doris Keller, educational director at that institution, to impress on the student nurses the importance of exercise and personal hygiene as agents of good health. Classes in hygiene are held, and each nurse is required to design a poster depicting her ideas of important factors in the building of a physically perfect body. These methods are found successful in calling the nurse's attention to the care of her own body, and also induce her to notice more carefully the diets, care and ailments of the patients in the hospital, so that she tries in her own way to formulate a treatment or to find a cause for the patient's ills.

Since a nurse's life is devoted to the cure and prevention of disease, it is essential that she first apply her knowledge to herself and provide herself with a physically sound body, so that she can give the service required of her, no matter how difficult the circumstances are under which she is working.

### Hospital Cuts Rates

Clarence H. Baum, superintendent, Lake View Hospital, Danville, Ill., has found that with the aid of the community chest, it has been possible to cut the rates on ten private rooms at his institution to \$3.50 per day. The rooms are so located that they are available for both medical and surgical cases. In the maternity department flat rates of \$35 in two-bed rooms, \$45 for small private rooms and \$65 for large private rooms have been established. These charges cover all treatments for the mother and baby for ten days.

Contributions by the community chest are partly responsible for the cut in room rates. The other reason, according to Mr. Baum, is that he believes the public will use the hospital more if they can be assured of hospital care at a reasonable rate.



## Laughlin Hall—A New Home for Nurses

By LOUISE LEFEVRE

Superintendent, Chestnut Hill Hospital, Philadelphia

**T**HE Chestnut Hill Hospital, Philadelphia, has completed a new home for nurses, known as Laughlin Hall, so named for the late Henry A. Laughlin who donated the land upon which the home is built.

The style of architecture is Early Georgian and conforms with the administration building and power plant. This completes three of the five buildings in the approved comprehensive plans, which are based upon studies made by Dr. S. S. Goldwater, hospital consultant, New York, in collaboration with Willing, Sims and Talbutt, architects, Philadelphia.

The building contains three stories and basement; it has been planned and located with a view to its future expansion, as required.

The basement which is entirely above ground contains the teaching department. The class and recreation room may be made into two rooms by means of sliding doors. The full size of the room is 36 by 20 feet. A door leads from this room into a storage room where models, skeletons and other class equipment are stored.

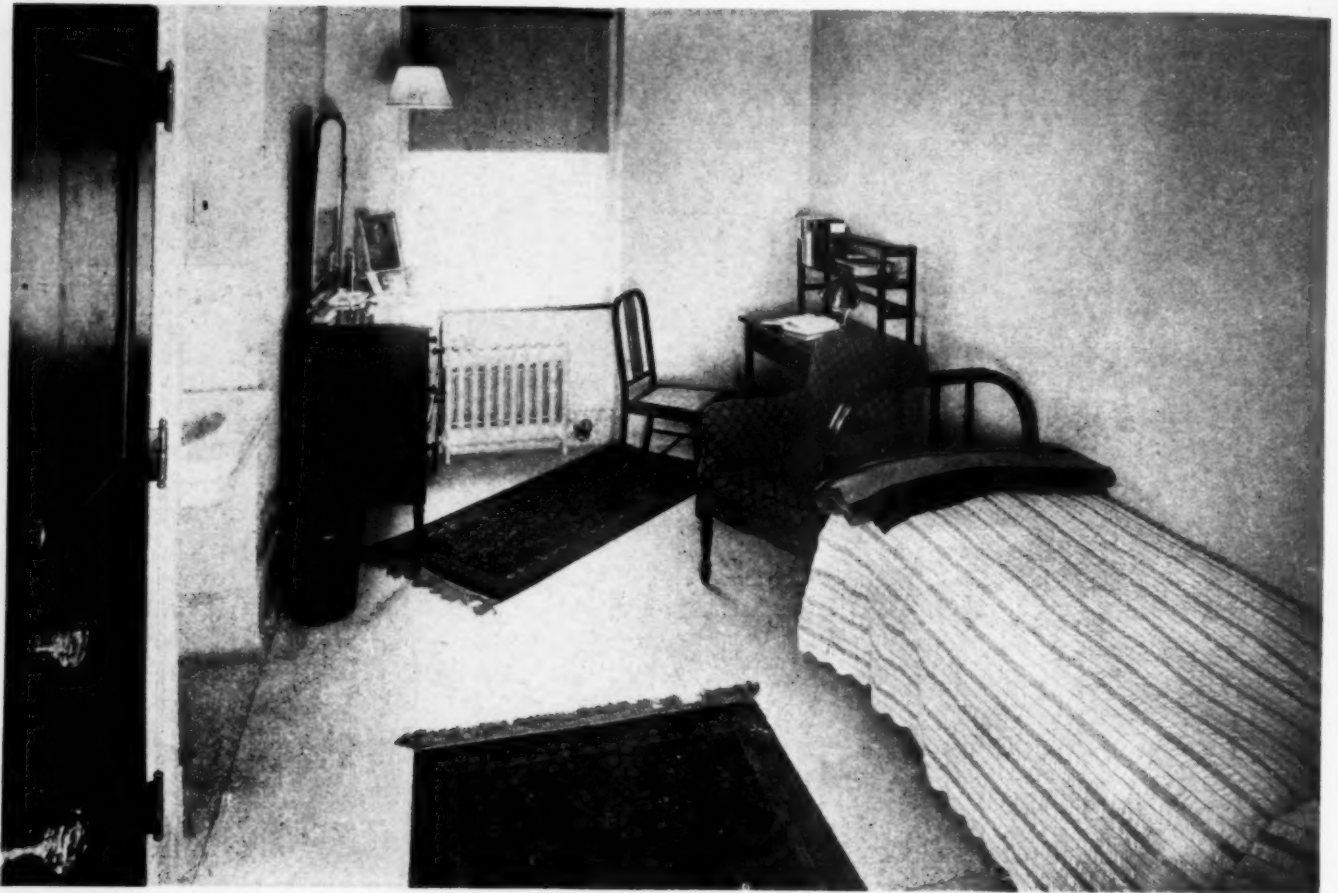
On the other side of this room is a large trunk room, where the trunks are kept on racks. Next

are a laundry storage room, help's locker and toilet room, sewing room with cupboards for the house linen supply, science laboratory with four windows, instructor's office and reference library. The opposite side of the corridor contains a demonstration room, 25 by 21 feet, model bathroom, utility room and linen closet, and a dietetic laboratory with sufficient floor space for sixteen individual teaching units. All of the teaching rooms are of ample capacity, are in quiet locations, and are well lighted.

The first floor has a large living room, flanked by two small reception rooms and a coat room for men visitors and one for women visitors, a matron's office and the main office which opens attractively just opposite the entrance at the stairway, and which contains the individual mail boxes, the buzzer board and the key and bulletin board.

The suite for the directress of nurses containing a living room, bedroom and bath, is on this floor, also a suite for the night supervisor and seven bedrooms for pupil nurses.

All rooms for pupil nurses have hot and cold water in a stationary stand, which is in a small



*Above, a pupil nurse's bedroom. The furniture is entirely in metal, painted walnut color, with the exception of one boudoir chair. Below, the main office which is just opposite the stairway.*



recess. A majority of the students' rooms are single rooms, measuring 8 by 14 feet clear of the closets, which are so placed as not to destroy the pleasant symmetrical lines of the room. The contrast between these rooms and the more common type of bedroom with an obtrusive, jutting, built-in closet, is noticeable. In each of the corner double rooms there are three windows, two full-sized closets, and a lavatory; the size of these rooms is 13 by 14 feet.

In the central part of each floor are the bathing facilities for pupil nurses. There are three tubs and two showers, and four toilets which are in a separate room. The rooms for supervisors have a bath between two bedrooms.

The second floor contains twenty-three bed-



*The reference library, Laughlin Hall.*

rooms and a kitchenette, where the nurses are permitted to make candy or cook food when off duty.

The third floor is similar to the second except that it has a laundryette in place of the kitchenette. In this laundry are two stationary tubs, two ironing boards, two electric irons and a drying rack.

French doors opening on to small balconies are at each end of the long dormitory corridor. Near the center is a side corridor leading to the fire tower; thus the corridor

is directly ventilated at three places.

The furniture for the bedrooms is entirely of metal, painted walnut color, with the exception of one comfortable boudoir chair in each room.

The reception rooms contain upholstered chairs and wood Windsor chairs in walnut color.



*Here is the living room. On either side of it is a small reception room.*

# Chronic or Convalescent?\*

By ERNST P. BOAS, M.D.

Medical Director, Montefiore Hospital for Chronic Diseases, New York

ONE of the main reasons for the neglect of the chronic sick is the general tendency to label them all as "incurable," and the failure to differentiate them according to their individual needs. This leads to misconceptions regarding the nature of their diseases and the treatment that they require.

"Incurable" is a harsh word. To the sick it signifies lost hope and impending doom; to the physician it spells defeat and ignorance; to society it means human wastage and added economic burdens; to all it carries the sadness of a wrecked or crippled life. Yet, in spite of its grave significance, the term "incurable invalid" is employed all too lightly in designating many of the chronic sick. And quite unconsciously the assumptions follow that all expenditures for their care are economically wasteful, and that the full duty of society is discharged with the provision of food and shelter until death relieves the sufferers of their miseries.

In the present state of medical knowledge, the pronouncement of the sentence "incurable" on a patient places a serious responsibility on the physician and implies, at times, a greater knowledge than he possesses. The acceptance of this verdict by the patient and the community not alone cruelly quenches all hope, but checks every further effort at physical rehabilitation. Yet, how often is such a diagnosis mistaken. Not infrequently an "incurable" can be restored to comparative health and economic usefulness, and in many instances, properly directed efforts will

serve to prolong life and to relieve pain and discomfort.

An intelligent grouping of patients suffering from chronic diseases, according to their medical needs, throws considerable light on the problem. They may be placed in three classes:

Class A, patients requiring medical study for diagnosis and treatment.

Class B, patients requiring chiefly skilled nursing care.

Class C, patients requiring only custodial care.

Poverty compels the majority of these individuals to seek institutional care. With few exceptions, the institutions in which they find refuge are prepared to offer only domiciliary care; yet this is adequate only for those in Class C. The others need highly specialized hospital care, quite analogous to that provided by general hospitals. But these latter

institutions are designed to fill the needs of subjects of acute illnesses whose period of hospital residence is measured by a few weeks. Although the chronic patients in Class A or B must spend months in an institution, they make equally exacting demands on its resources. A few examples will serve to clarify these distinctions.

Class A may be illustrated by a patient with chronic heart disease, a man who has experienced an attack of heart failure with dropsy. He is bedridden, short of breath and quite unable to serve himself. He may be desperately sick. He receives visits from physicians several times a day. He is given large doses of digitalis, which must be adjusted daily. Other daily medication must be administered as indicated. If the dropsy is severe it may be necessary to withdraw fluid

## An Economic Problem

IT HAS been found time and again that a patient has been classed as "incurable" merely because the examining doctor could not definitely name his ailment. Has any medical man the right thus to kill the hope of a patient when careful analysis of his ills by a group of competent physicians and surgeons might reveal that all he needs to restore him to health is careful medical and nursing care?

Dr. Boas here makes a plea for an intelligent grouping of patients suffering from so-called chronic diseases, according to their medical needs. In this way, he holds, those who require medical study for diagnosis and treatment will be differentiated from those who require merely custodial care, and human wastage and economic burdens will thus be alleviated.

\*Read before the American Hospital Association, Minneapolis, Minn., October, 1927.

from the thoracic or abdominal cavities. The patient needs skilled bedside nursing care. The intake of fluid and output of urine must be quantitatively measured; a salt free, or some other form of special diet must be administered. It may be necessary to take x-ray pictures and electrocardiograms to clarify the diagnosis. In other words, the patient needs complete hospital care—often for a period of many weeks. Subsequently, if he improves, he still must have skilled nursing supervision and, finally after several months, simple custody may be enough. Many patients with heart disease remain in Class A for six or more months.

### Skilled Nursing Care Is Needed

Again, there is the patient who has suffered a stroke with resulting hemiplegia, or paralysis of one side of the body. He is completely helpless and bedridden. Usually he has a high blood pressure which has predisposed to the apoplexy. If he receives nothing but unskilled home nursing, he will, in all probability, remain bedridden or chairridden for the rest of his life. With treatment properly directed, in particular, with the employment of the various modalities offered by a well equipped and well staffed physiotherapeutic department, muscular reduction is possible in most instances, and within a few months the patient can be taught to walk and to help himself to a large extent.

As an example of Class B, one may take a patient with far advanced paralysis following epidemic encephalitis, more popularly known as sleeping sickness. Nothing will restore the functions of the destroyed nervous system, but the patient, whose mind often is alert, is completely helpless—he cannot even turn in bed. He needs expert and loving nursing care to relieve his misery and to avoid serious complications, in particular, the development of bedsores. Similarly, a victim of a far advanced cancer, which will not yield to surgery or to radiation treatment, often requires painstaking nursing for many months. This involves not alone routine bed care, but careful dieting and the administration of hypodermic medication.

A Class C patient presents no medical problems. In him the disease process is arrested, leaving him with a permanent physical disability. He needs no medical care and could live at home if his home were adequate. But all too often poverty, frequently brought on or accentuated by the long drawn out antecedent illness, makes this impossible and necessitates domiciliary care in an institution. A wheel chair patient in a squalid tenement room is little better off than an animal

in a cage. He can never enjoy sunlight and the open air. He himself has no privacy and his family is never free from the burden of care of an invalid. For such cases institutional custody is often the only solution.

The provision of adequate care for a Class A patient is a constructive effort; often it leads to whole or partial rehabilitation and to economic relief from the burden of illness. This claim cannot be made in the case of Class B patients. Improvement cannot be expected, but on humanitarian grounds they need relief. With these helpless invalids, as well as with the custodial group, properly adapted institutional care brings succor not alone to the patient, but relief to the family whose poverty and misery are greatly aggravated by the burden of a chronic invalid in the home.

Another misconception that has retarded the awakening of the community conscience in regard to the chronic sick is the confusion of old age with chronic disease. Old age is a relative concept. To children all adults seem old. As we ourselves advance in years our ideas as to the particular time of life that marks the onset of senescence are constantly changing. It is clear that the study of old age as a community problem necessitates the establishment of objective standards. The common denominator of all of the aged who seek public relief is their dependency, so that analysis of the causes of this dependency is essential to a clear understanding of the problem.

### Sick or Senile?

Elderly persons, who become a charge upon the community, may be divided into two great classes—the able-bodied and the sick. In the case of the able-bodied aged the factors concerned are largely economic ones. It is well known that employers hesitate or refuse to engage workers who are even moderately advanced in years, in spite of the fact that they may be physically quite competent to work. Such individuals, usually in their sixth and seventh decades, do not come within the scope of the present discussion. Their plight is due largely to the present day industrial system, and their relief will have to be worked out along some such lines as old age insurance.

There is another class of able-bodied aged who are more closely related to the chronic sick. They are persons, who, as a result of the gradual wearing out and enfeeblement of their organs and tissues, are experiencing a slow progressive decline of their physical and mental faculties, but who within these limits can care for themselves. Unless one of the vital organs is more particularly affected, there are no clear-cut symptoms of disease and there is no complete disablement

of the human organism. These old people are no longer strong enough to work, but they need no specialized attention. Domiciliary care in their homes or in an institution is adequate for their wants.

This gradual senile decay or true aging first becomes manifest, as a rule, after the age of threescore years and ten. While it is true that in some this stage of gentle senescence may commence at an earlier period, this is a distinct exception, for most of the disabilities of the sixth and seventh decades are caused by chronic disease and should not carelessly be assigned to "old age." Persons between their fiftieth and seventieth years, who are disabled or infirm, should be regarded as sick, not as suffering from the natural decrepitude of old age. The term "senile" just as the term "incurable" involves an assumption of inevitableness that leads these victims of disease to be regarded as hopeless derelicts, who must be placed in a home for the remainder of their days, rather than as patients who need medical attention.

#### Convalescents Can Be Restored

It must not be thought, however, that the chronic sick are confined to these older age groups. At Montefiore Hospital for Chronic Diseases, New York, fully one-half of the patients treated annually are under fifty years of age. The following table shows the age distributions of all chronic patients treated during 1926, excluding tuberculous patients:

Under 18 years of age .....	111	
19 to 35 years of age .....	199	
36 to 50 years of age .....	303	
		613
51 to 75 years of age .....	565	
Over 75 years of age .....	40	
		605
Total number of patients treated.....	1,218	

There has been a growing tendency to confuse convalescent with chronic patients, due probably to the fact that both often need prolonged institutional care which cannot be given in a general hospital. The patient who has just passed through a major medical or surgical illness, or who is weak and undernourished, or, as the saying is "run down," and who needs a few weeks' general convalescent care, will give rise to no misconceptions. But the individual who needs special convalescent care, who is often received in a special convalescent home, resembles more closely the patient with chronic disease. Sufferers from

heart disease and from chronic, in particular tuberculous, infections of the bones and joints, are the chief representatives of this class. At the Burke Foundation, White Plains, N. Y., it is reported that fully 25 per cent of the inmates treated are subjects of chronic disease.

In a measure the division between chronic and convalescent patients is quite arbitrary, but certain valid differences may be defined. The convalescent patient, it is assumed, is always capable of complete physical and economic restoration, whereas, only some of the chronic patients can be rehabilitated. The convalescent needs little medical care; perhaps an occasional surgical dressing, a special diet, and sympathetic supervision by an intelligent nurse. The chronic sick often require much medical attention from physicians, nurses, dietitians and technical assistants, as well as specialized equipment used for diagnosis and treatment. The convalescent may be likened to the custodial chronic patient. The needs of both are met by simple domiciliary care; both seek institutional relief because poverty makes even such elementary care impossible.

In recent years there has been a growing tendency to establish special convalescent homes, particularly homes for victims of heart disease and of tuberculosis of the bones and joints. This development may be traced to the realization of the fact that the general convalescent homes are not equipped to care for these patients, the general hospitals are unable to retain them for sufficiently long periods of time and hospitals for chronic diseases are practically nonexistent. These special convalescent homes accept patients who are sick, who are often bedridden and who may require much medical attention. They function, in fact, as hospitals for chronic diseases of a very restricted type.

#### Abolish Hospital Atmosphere

In large centers of population there is room for these many specialized types of institutions. In smaller communities such multiplication of effort is unnecessary. Most general hospitals are not operated to capacity and could readily set aside a number of beds for the care of sufferers from chronic diseases. They would thus utilize more completely their own resources and save many of the sick from the almshouse and from consequent neglect, for at present the almshouse is the only refuge for most of these unfortunates. If an adequate hospital for chronic diseases is available, there is no need for special convalescent homes. The general convalescent home, which must, above all, avoid a hospital atmosphere, because of the all-essential psychic as well as

physical building up of its patients, cannot well be combined with any other institution.

Since the solution of the many problems involved in the care of chronic and convalescent patients is so intimately dependent on a clear recognition of their varied needs, it may be worth while to recapitulate briefly. The term "incurable" should be discarded. Fully 60 per cent of those afflicted with chronic diseases are in need of active medical and nursing care; simple custody in a home for incurables or in an almshouse is quite inadequate. They need the resources of a general hospital for periods extending over many months. For some 40 per cent of victims of chronic disease simple domiciliary care is sufficient, provided they have access to a hospital when a renewed progression of their disease sets in. Convalescents from acute medical and surgical conditions need domiciliary care in general convalescent homes far away from the sick and from the hospital atmosphere. Patients who are at present cared for in special convalescent homes can be accommodated equally well in hospitals for chronic diseases.

Only large centers of population can afford the establishment of these many types of special institutions. In smaller cities the general hospitals, particularly those that are not operated to their full bed capacity, can open their doors to many of the chronic sick. In most communities, however, the complete solution of the problem will consist in the reform of the almshouse, or rather in the replacement of the almshouse by a real county hospital, which will receive the many patients who at present, in spite of their urgent needs, are ineligible for hospital care.

### Where Is My Place When a Fire Breaks Out?

Are you susceptible to that panicky feeling when the harsh shrieks of the fire siren reach your ears? Dr. Earle V. Gray, superintendent, Gowanda State Hospital, Helmuth, N. Y., in a recent article in the *Psychiatric Quarterly*, gives his ideas on the handling of a fire in an institution for the insane.

In case of the discovery of a fire it is the duty of every employee, to whom knowledge of the catastrophe comes, to ask himself at once, "Where is my place?" By means of proper instruction and training the question will be answered and the work of every individual in the hospital will be known.

In order to prevent a panic, and do the most good toward extinguishing the fire, it is necessary that every man should know his particular duty, and through clear understanding of his duty he will lose whatever fear might have assailed him.

In a large institution it may be necessary to have a code of signals as a means of informing everyone where

the fire is and what exits are available. If this is the case, then it will be necessary for all to acquaint themselves with this code.

In many cases when there is a fire in a hospital, the heads of the hospitals are often reluctant to turn in an alarm to the fire department for fear of causing a commotion and unduly frightening the patients. It is best to call the department, and then do whatever you can to extinguish the blaze before its arrival.

Another big step in fire prevention is taken through the removal of the various causes. Matches, oily rags, rubbish, lighted cigarettes, dust collections, and sundry other things are commonly the cause of fires. Remove them and abolish the danger.

The entire hospital personnel may be divided, for the purpose of fighting fires, into four divisions, as follows: (1) A safety corps, whose duty it should be to evacuate the building as speedily as possible, for the protection of the patients and employees. (2) A first aid corps, whose duty it should be to take care of all accidents and injuries. (3) An auxiliary corps, who, in the event that a fire persists, should make arrangements to furnish food and drink to those fighting the fire. (4) A fire-fighting department, whose duty it should be to protect the buildings from fire.

This fourth, or fire-fighting group, should be organized into hose and hook and ladder companies. They should meet at regular intervals and discuss methods of fire fighting, and should have drills, with full equipment, in order to accustom themselves to the correct handling of the apparatus.

### Encourage Autopsies in Hospitals

In an address at the Annual Congress on Medical Education, Medical Licensure and Hospitals, Dr. Christopher G. Parnall, superintendent, Rochester General Hospital, Rochester, N. Y., said that the work of the medical staff of a hospital is judged, and the desirability of the hospital for intern training is determined to a great extent by the percentage of autopsies performed.

A low percentage of autopsies is a reflection on both the administration and the medical staff. In a modern hospital the administration is expected to require high standards of medical service, and the staff has a right to expect the active cooperation of the administration in maintaining an atmosphere of scientific interest and a tradition of good professional service. A small number of autopsies indicates that the hospital is not realizing its best possibilities as a medical institution, in research and in investigative work.

In a hospital where autopsies are to be performed, the services of an experienced pathologist must be obtained. Proper facilities, including a suitable postmortem room, must be maintained, and there must be an organized method, free from friction, for obtaining permission for autopsies and expediting their performance.

Permission for an autopsy should not be a legal requirement, and a death certificate should not be issued until the cause of the death is established or corroborated by autopsy. Practicing physicians as well as staff physicians should be invited to perform autopsies in the hospital, and every possible means should be taken to educate the public as to the value of autopsies, for when this is understood and appreciated by the public, opposition directed against the performance of autopsies will be less strenuous.

# Are Out-Patient Privileges Abused?

By JENNIE F. I. DIXON

Director of Social Service, Springfield Hospital, Springfield, Mass.

**T**HROUGH the generosity and cooperation of the Junior League of Springfield, Mass., the out-patient department of the Springfield Hospital was opened on October 13, 1925. It has had a steady growth since that time. During the two years ending November 30, 1927, 3,976 patients have made 19,328 visits for advice and treatment.

Since the opening of the out-patient department, a social worker has been at the admission desk and has met each new patient on his arrival. Through this contact, the social service committee has been interested in the development of the work, and on March 10, 1927, the chairman, Dr. James Seaman, appointed a subcommittee consisting of Mrs. John P. Harding, chairman, Mrs. James Gordon Gilkey and John Gardiner, ex-officio, to study the intake of the out-patient department.

At its first meeting, the subcommittee mapped out a plan of study, deciding to consider 500 consecutive admissions to the out-patient department. To this they made two exceptions—they voted to omit from the study the patients from the clinic for the treatment of venereal diseases, feeling that they presented problems quite different from the usual out-patient admission. They also voted to consider only one patient in each family, so the study would show 500 family situations. On this basis, a schedule form was worked out. Because conditions in the family change frequently, it was voted to consider them as they were at the time of application.

Credit should be given here to the workers in the out-patient department—Elizabeth Petten-gill, Mrs. Jessie M. Delaney, and Hazel M. Simmons, who painstakingly gathered the data on these patients as they were admitted.

## Six Months' Admissions Studied

The study represents the admissions over a period of approximately six months, from April to December, 1927. Although it was impossible to make an exhaustive investigation in each case, careful inquiry was made of the patient at the time of admission, and the data secured were checked against the records of the social agencies, the assessors, and sometimes by home visits, for verification. When it came to tabulat-

ing the results, there was the usual difficulty in making individual situations fit into statistical classifications. We have tried to do this as accurately and fairly as possible.

The study does not include forty-five patients who were turned away without being admitted. Thirty-four of these were refused treatment because they were able to pay a private physician; two because they lived outside the territory served by the out-patient department; and nine because they were already under the care of a physician, to whom they were referred back.

## Community to Be Served

When the out-patient department opened, it was decided that it should serve the community chest district: Springfield, West Springfield and Longmeadow. Exceptions to this are made when patients have been in the wards and are referred to the out-patient department for subsequent care; and also for tonsil and adenoid cases whose appointments for ward care are made through the out-patient department.

Of our 500 cases, we found 432, or 86 per cent, living in Springfield, with the balance distributed as follows:

Springfield .....	432
West Springfield .....	32
Longmeadow .....	3
East Longmeadow .....	5
Chicopee .....	2
Agawam .....	7
Feeding Hills .....	3
Mittineague .....	3
Westfield .....	5
Woronoco .....	1
Holyoke .....	1
Ware .....	1
Monson .....	1
Brimfield .....	1
Palmer .....	1
Hatfield .....	1
Warren .....	1

500

The largest number of our patients came to us through the social agencies of the city: 169 or 34 per cent. One hundred nineteen or 24 per cent made their own application or were sent by rela-

tives or friends. The local doctors sent 93 or 19 per cent, and the hospital wards sent 49 or 10 per cent.

Referred by social agencies .....	169
Springfield Nursing and Public Health Association .....	54
Family Welfare Association .....	37
West Springfield Relief Association ..	31
Board of Public Welfare .....	25
Rescue Mission .....	4
American Red Cross .....	3
Jewish Social Service .....	2
Congregational Union .....	2
Day Nursery .....	2
Doane Home .....	2
Churches .....	2
Child Guidance Clinic .....	1
Children's Home .....	1
Hampden County Children's Aid Assn..	1
Mass. Dept. of Immigration .....	1
Policewomen .....	1

169

Personal application or referred by friends.	119
Referred by local doctors .....	93
"    " Springfield Hospital wards ...	49
"    " school nurses .....	58
"    " Board of Health Dispensary ..	2
"    " employers .....	7
"    " out of town agencies .....	3

500

Ninety-one or 18 per cent of our patients were under five years of age; 218 or 44 per cent were between five and twenty years; 168 or 33 per cent were between twenty and sixty years; and 23 or 5 per cent were over sixty years.

The sexes were fairly evenly divided: 267 female and 233 male.

Less than one year old .....	13
One year and less than two years .....	10
2 years to 5 years .....	68
5 " to 10 " .....	110
10 " to 20 " .....	108
20 " to 30 " .....	49
30 " to 40 " .....	47
40 " to 50 " .....	49
50 " to 60 " .....	23
Over 60 years .....	23

500

The large majority of the families represented were normal ones, having two adults: 369 or 74 per cent. One hundred fifteen families contained only one adult; 48 of these were unmarried people or adults living alone, and the remaining 67 were widows or widowers or deserted wives with

children. Sixteen families contained more than two adults.

In 86 instances there were no children. Deducting from this the 48 adults living alone, leaves 38 couples without children. Small families seemed to predominate, as 308 families, or 61 per cent, had from one to four children, and only 21 per cent had five or more children.

Families having no children .....	86
"    " one child .....	64
"    " two children .....	92
"    " three " .....	93
"    " four " .....	59
"    " five " .....	51
"    " six " .....	27
"    " seven " .....	20
"    " eight " .....	4
"    " nine " .....	2
"    " ten " .....	2

500

When we tried to determine the financial status of the family, we began to have difficulties. We attempted to learn their incomes from earnings, from other sources and from relief agencies. We also tried to learn whether or not they had any property, either real or personal, and over against this we sought to balance their current expenses and their debts.

We found that 116 were unemployed; 29 had incomes too irregular to be classified; 87 had wages under twenty dollars a week. At the other end of the scale, 21 received wages over forty dollars a week. This usually represented the combined earnings of two or more members of the family.

Unemployed .....	116
Too irregular to be classified .....	29
Under \$12 a week .....	19
\$12.01 to \$20.00 a week .....	68
\$20.01 to \$25.00 " " .....	90
\$25.01 to \$30.00 " " .....	68
\$30.01 to \$35.00 " " .....	36
\$35.01 to \$40.00 " " .....	34
\$40.01 to \$45.00 " " .....	8
\$45.01 to \$50.00 " " .....	2
Over \$50.00 a week .....	11
Working for board and room .....	2
Others (in institutions, etc.) .....	17

500

Seventy-one had incomes from other sources than earnings, received as follows:

From relatives .....	42
From friends .....	1
From rent .....	15
Pension .....	5

Compensation .....	3
Lodgers .....	3
Shop .....	1
Gas station .....	1

71

Eighty-three families were receiving charitable relief from the following sources:

Board of Public Welfare .....	42
Family Welfare Association .....	17
Soldiers' Relief .....	4
Rescue Mission .....	4
West Springfield Relief Association .....	2
Doane Home .....	2
Benefit lodges .....	2
Veterans' Bureau .....	2
Jewish Social Service .....	2
Home for Friendless Women .....	2
Town of West Springfield .....	1
Hampden County Children's Aid Assn. ....	1
American Red Cross .....	1
Salvation Army .....	1

83

In addition to the number given, twelve more families had been aided recently but were not receiving assistance at the time of application.

Eighty-two families had real estate listed in their names. An effort was made to learn the amount of equity which each family had in the property, but this had to be abandoned. In many instances, the patient did not know himself the amount of equity, and it would have involved endless time in studying mortgages and figuring payments. We therefore recorded the assessed valuation of the property. Without exception, the property was mortgaged, and in a number of instances, the mortgages exceeded the assessed valuation by more than a thousand dollars.

Assessed at less than \$ 1000.....	7
" " \$ 1001 to \$ 2000.....	8
" " \$ 2001 to \$ 3000.....	12
" " \$ 3001 to \$ 4000.....	14
" " \$ 4001 to \$ 5000.....	17
" " \$ 5001 to \$ 6000.....	6
" " \$ 6001 to \$ 7000.....	9
" " \$ 7001 to \$ 8000.....	3
" " \$ 8001 to \$ 9000.....	3
" " \$ 9001 to \$10,000.....	1
" " \$14,000 .....	1
" " \$15,000 .....	1

82

Nineteen families had automobiles which were not needed in their business. The assessed valuations on these varied from \$10 to \$300 and averaged \$93. Twelve more had trucks or cars

necessary to their occupations; and two peddlers owned horses.

An effort was made to learn the amount of savings, if any, held by the families represented. In only nine instances were we able to learn of savings. These varied in amounts from fifteen dollars to two hundred dollars. In the family that had two hundred dollars, part of it was owed for a doctor's bill, and the family income was such that they were running from four to nine dollars a week behind their expenses.

As rent is a large, fixed item in the family budget, we tabulated the amounts paid by the families in the study. Of the 369 families paying rent, 224 paid twenty-five dollars a month or less. The three instances over fifty dollars, were those of women earning their livelihood by running rooming houses. In some of the families where the rent was thirty-five dollars or over, heat was included, which made the rent less expensive than it would appear at first.

\$15.00 a month or less .....	47
\$15.01 to \$20.00 a month .....	83
\$20.01 to \$25.00 " " .....	94
\$25.01 to \$30.00 " " .....	77
\$30.01 to \$35.00 " " .....	30
\$35.01 to \$40.00 " " .....	20
\$40.01 to \$45.00 " " .....	13
\$45.01 to \$50.00 " " .....	2
Over \$50.00 a month .....	3
Families holding real estate .....	82
Rent free in return for work .....	2
Others (in institutions, living with relatives) ..	47

500

Ninety-six families were in debt, sixty-four of them for a hundred dollars or less. In all probability, there was a much larger number of our patients in debt than appears here. We found it almost as difficult to secure accurate data on debts as on savings.

Less than \$ 25.00 .....	10
\$ 25.01 to \$ 50.00 .....	20
\$ 50.01 to \$ 75.00 .....	17
\$ 75.01 to \$100.00 .....	17
\$100.01 to \$200.00 .....	18
\$200.01 to \$300.00 .....	6
\$300.01 to \$400.00 .....	3
\$400.01 to \$500.00 .....	4
\$500.01 to \$600.00 .....	1

96

Most of the debts were contracted on furniture, rent, grocery bills and doctors' bills.

Criticism is sometimes made by the doctors that patients are admitted to the out-patient department whose incomes are sufficient to allow them

to employ a private physician. In an attempt to learn whether or not this criticism applied to the 500 patients under consideration, a budget for necessary expenses was made out for each family, and we are greatly indebted to Mrs. Charles Bellamy of the Junior League for doing this huge piece of clerical work for us. The budget used was one made up by the nutrition service of the Community Health Association, Boston, and allowed only "the minimum amount on which adequate nourishment can be secured, with careful buying and with no waste in preparation or at the table."

With this computed for each family, we estimated the amount of difference between the income and the budget, and on the basis of this margin, taking into consideration debts and the amount and kind of treatment needed by the patient, we tried to determine how many could have paid for private treatment.

We found that 339 families, or 68 per cent of the total number, had incomes less than even the minimum budget:

Because of unemployment .....	57
Because of part time employment .....	11
Receiving charitable assistance .....	75
Receiving assistance from relatives .....	41
Irregularity of income .....	27
Inadequacy of income .....	128

339

Forty-six families had incomes equalling the budget, or having not more than two dollars a week margin.

That left 115, or 23 per cent, with incomes having some margin over the budget. These margins varied from \$2.45 to \$28 a week. Of the 115, 8 were referred to private physicians at the end of their first visit; 5 more were seen only once. Eighty-three seemed legitimate subjects for out-patient care for the following reasons:

Long, expensive care necessary .....	12
Special services necessary .....	12
Need of surgical treatment .....	39
Heavily in debt .....	18
Other reasons .....	2

83

This leaves a remainder of nineteen that we feel should have gone to a private physician. Of this nineteen, six were sent to us by local doctors, and three by the hospital wards. As nineteen is less than 4 per cent of the total number studied, it seems as if we could confidently state that the public at large is not showing an inclination to abuse the privileges of the out-patient department.

## A Suggested Code for Interns

The following interns' code has been formulated by the *Bulletin of the Academy of Medicine of Cleveland*, from expressed ideas and suggestions of teachers and visiting physicians:

"As this is the season in which the new groups of interns are getting under way," the *Bulletin* reminds, "and are being urged to join the Academy of Medicine and to identify themselves with organized medicine, it seems timely to formulate some of the oft expressed ideas and suggestions of teachers and visiting physicians in regard to the interns' code. It is well enough to say simply 'be a gentleman and do your work,' but with hospital authorities, visiting staffs, nurses, patients, patients' friends and fellow house officers to keep happy, a few more specific suggestions would seem to be necessary for the man who is stepping from student life into the first real responsibilities of medical practice:

"Assume the ward patient as an individual responsibility. Be loyal to him and let him feel that you are his doctor and are keenly interested in his welfare.

"Use residents and visiting physicians as consultants, but do nothing without their knowledge and consent, especially of an experimental character or involving risk to the patient.

"Keep control of your patient. He should not go over your head to others. Be definite in instructions. Do not delegate too much to the judgment of the patient and nurse.

### Be Courteous

"Be courteous always and keep a high self-respect. Be above anger with patients and nurses; firm but never officious. Think much but argue little.

"Give prompt attention to the new patient. Nothing discourages the new patient, suddenly taken to a hospital, more than to be there for hours before anything happens. Show a human interest—the biggest thing in the art of medicine. The personal relationship is the key to effectiveness.

"Keep a list of your patients with you. Note suggestions of visiting physicians in writing.

"Grow professionally; read up on cases or groups of cases, rather than reading much current medical literature—not lengthy but frequent references. Get a rounded clinical picture of a disease—not isolated facts. Let the visitant feel that you are eager to learn.

"Never jeopardize the welfare of the patient by participating in an interns' strike against the hospital management. Thus to desert the patients in the hospital is like policemen on strike, ignoring the public safety. The public reaction is similar. Loyalty to the group of interns is good, but loyalty to your patient should be more sacred. Collective bargaining may at times be justifiable.

"Guard against unnecessary and unwise talking, as in the hearing of the patient coming out from anesthesia or from alcoholic or other stupor. Patients sometimes remember surprisingly well. Avoid inciting damage suits by the patient who thinks he has been the victim of malpractice. Never disparage outside physicians to the patient.

"Secure autopsies. Having the confidence of the patient and his family usually disarms opposition, if tact is employed in approaching the matter. Talk to the sensible or responsible member of the family alone, not to a sentimental group. Autopsies in well studied cases make lifelong impressions."



### *Maine General Hospital*

*The reception room at the Maine General Hospital, Portland, Me., has an attractive color scheme, with light jade green and burnt orange reed furniture. A large mirror is over the mantle and the wall is hung with tapestries. A writing desk, reading table and lamp lend a homelike appearance to the room.*

## STUDIES ON HOSPITAL PROCEDURES

### The Hospital Sterilizer—A Blessing or a Menace

FROM early Listerian days, when the germ theory as to the causation of disease began to be generally accepted, methods for the destruction of disease-producing organisms have grown in number and scope, by leaps and bounds. At first chemicals were widely employed for this purpose. In the absence of antiseptics, which were expensive and of which four decades ago there were no such numbers as are known today, the physician employed heat for the destruction of the virus or disease germs, even though in his own mind he might not be wholly clear as to the nature of these agents.

But 'tis a far cry from the antiseptic spray and the old-fashioned wash-boiler in which linens and instruments were immersed in boiling water, to the modern sterilizer, so commonly seen in the hospitals of this country. The wash-boiler, as a type of sterilizing apparatus, possessed but one of the elements of danger found in the sterilizers of our modern hospitals—the possibility of the incomplete destruction of germs.

The second danger to which we have alluded is that which arises from the imprisoning of the almost irresistible force that is generated when water is transformed into the vapor, steam.

It may be said at the outset that these two dangers menace every hospital that exists today, because no hospital pretends to function without the possession of a more or less complete sterilizing equipment. But strange as it may seem, with these two dangers constantly existing in the thousands of hospitals in this country, accidents as a result of either possibility are remarkably few in number. This fact may be explained in several ways. It is possible that due to reasons that should be apparent to most of us, the knowledge of all accidents that occur may not reach the columns of the public press or the attention of the hospital field generally. It is certainly a great tribute to the honest and efficient methods employed by manufacturers in the construction of complicated sterilizing equipment, that such apparatus functions year in and year out, with but

meager attention, in so far as routine inspection and prompt repairs are concerned.

The theorem that presents itself at this time, may be expressed as follows:

What are the factors of danger that exist in the handling of hospital sterilizers, and how can they be minimized, if not entirely obviated?

In the average institution, particularly the smaller hospital, it is not financially possible to assign one person to the business of sterilizing the hospital's surgical goods, instruments, water and solutions prepared for intravenous use. This work, because a central sterilizing plant is not often to be found, must be divided amongst a number of persons, most of whom have only a superficial knowledge concerning mechanics or the physical laws acting when steam is generated from water. These persons may have had only a smattering of instruction concerning the use of the various valves and levers that must be manipulated in the process of sterilizing. To an untrained and youthful student nurse, a modern sterilizer must appear as a formidable piece of machinery, indeed. That there is to be found on the wall near by a set of instructions, with numbered cocks and valves, or a detailed blueprint, does not in any way insure the proper use of the sterilizer.

#### Verbal Instructions Unsatisfactory

Trained hospital executives have long since learned that to instruct the neophyte in medicine or nursing, verbally, as to any complicated process, seldom insures competence in carrying out this step correctly in the future. Frequent repetition of instructions and demonstration is necessary. In addition, the strenuous and nerve-racking life of the operating room nurse does not always predispose her to carefully considered action or thought. The fact, then, that expensive and potentially dangerous equipment is so often turned over to untrained persons, in itself should account for some of the accidents that occur from the uninformed or careless use of the sterilizers in our hospitals.

The second point to be considered is, that sterilizing equipment being so stanchly constructed, with the added factor of built-in safety, tends to prolong the institutional life of this apparatus. One observes in walking through the corridors of hospitals, equipment that has been in use for from one to three decades. It is indeed a fact that excites the wonder of the informed person that such equipment continues, day in and day out, to perform its work. That accidents do happen from the explosion of sterilizers, weakened by years of service, is indisputable. Institutions that

manufacture their own steam are likely, because of defects in the power house, to have a somewhat varying steam pressure. Reducing valves from main steam lines may be defective, and hence a great surge of pressure direct from the main boilers themselves, may be thrown without warning into the sterilizer and without any means of control being at hand. There are, therefore, what may be termed extra-operating room factors that enter into the problem.

### Intelligent Care Essential

It has been suggested above, that sterilizers, no matter how sturdily and honestly built, are subjected to gross insults from the standpoint of lack of attention and repair. As a corollary to the first consideration discussed under our theorem, a comparison may be made with the type of personnel and the intensity of attention given to the expensive and complicated machinery in the power house of the hospital. One never finds there engineers and oilers and electricians who are changed at short intervals of time. The dynamos and boilers are as intimately understood by their caretakers as are the traits and idiosyncracies of a valuable beast of burden, by its owner. Every unusual sound or variation in functioning is observed by a watchful engineer and its cause is located. If a defect in machinery is found, this is promptly remedied. This is not true with those relatively smaller but equally important and, on a lesser scale, as potentially dangerous pieces of equipment—the sterilizers that are scattered throughout the various dressing and operating rooms in the hospital.

Have you ever stopped to consider the immense force that strives to break loose from its imprisoning walls, when the door of an autoclave is closed and the steam is turned on, or when water is being sterilized in the modern institutional sterilizer? A single thirty-five gallon water sterilizer tank operating at a normal pressure of 20 pounds per square inch, has a total internal pressure of twenty-five tons tending to burst it. The door of an autoclave twenty inches in diameter, when this apparatus is being operated on a pressure of 20 pounds to the square inch, has a giant with a striking force of three tons trying to force it open. If the thirty-five gallons of water under 20 pounds of steam pressure, or in other words heated to 260 degrees Fahrenheit, were to be suddenly released through the explosion of the tank, it would expand instantly into 60,000 gallons of steam, with a force sufficient to demolish the walls of the room in which the sterilizer had been placed.

These few statistical statements are not in-

serted in this article to create undue alarm in the minds of those handling institutional sterilizers, but to recall again to all of us that familiarity is likely to breed contempt—that constant exposure to a danger sometimes dulls one's natural sense of caution, to the point of seriously predisposing to the very accident concerning the possibility of which one may be fully informed. Nor would it seem possible to the casual observer, that such unbelievable chances would be taken by nurses, attendants and others, after they have been more or less thoroughly instructed concerning the danger to themselves, to the patients, and to the institution, that is ever present in the handling of steam when compressed.

In a certain institution, it was found that the engineer had set the safety valve of a large dressing sterilizer at 30 pounds pressure instead of 20 pounds. Beside the sterilizer, in full view, were the manufacturer's instructions which indicated that the maximum pressure to which that apparatus must be subjected was 20 pounds to the square inch. Nevertheless, in spite of this fact, a usually cautious engineer had been willing to subject the sterilizer to an increase in pressure, one-half greater than that which it was expected to withstand. In another hospital, it was found that because the safety valve was constantly opening and the hissing sound thereof annoyed the nurse working in the sterilizing room and the surgeon operating near by, the nurse had deliberately closed this valve with adhesive tape. She seemed quite unconcerned when her attention was called to the dangerous condition under which the sterilizer was being operated, and was not particularly interested in advice as to inspection of this valve and as to the purchasing of another, were it found to be defective.

Such ill-considered and foolhardy actions are not confined to a single hospital. Rather it is feared that their counterparts occur in the hospital field many times throughout the year.

### Causes of Accidents

But scant mention needs to be made of the second danger to which there is reference above. Failure of sterilization is potentially as death-dealing as the untoward results that follow the improper handling of the sterilizer itself. The causes for these accidents may be the same factors of improper operation as seem to cause accidents resulting from the explosion of the apparatus. Precautions, however, which may be taken to prevent infected instruments and materials from being employed, are perhaps more simple and certain in operation than those necessary to prevent the latter type of accident. These

concern themselves largely with sterilizing controls, which are melted when the proper degree of heat is attained and with the accurate timing of the process during which infected articles are subjected to heat.

As to the sterilizer itself, much may be said. The products that are on the market today are in the main reliable and are built for service and long life. It need only be said that to endeavor to save money by purchasing cheap apparatus is in the long run, to lose money, as unusual and costly repairs and rapid general deterioration will inevitably result.

Scientists have fortunately found a way to make safe the use of the giant, steam. The safety valve of the sterilizer represents, if it is possible to differentiate in importance, the greatest safeguard of all to the life of both the patient and the operator. The steam gauge registers pressure, but the safety valve automatically preserves life. Student nurses cannot be too intensively drilled on the function of this portion of the apparatus. It is to the nurse the *noli me tangere*—the touch me not—portion of the apparatus.

### How to Prevent Accidents

Now, from a practical standpoint, what can be done to prevent the disastrous accidents that occur in our hospitals as a result of the explosion of the sterilizer equipment? Little need be said in regard to the handling of utensils and instrument sterilizers. The lids of these box sterilizers, being not steam tight, act as their safety valves. They are of little more danger than the housewife's wash-boiler. But pressure sterilizers, as represented by the autoclave and the water sterilizer, represent veritable bombshells of destruction, unless they are intelligently handled.

What is needed in our schools for nurses, is greater and more intensive attention to the business of training student-nurses in the proper handling of major and minor hospital machinery. This course should cover thorough instruction in the inspection, oiling and general cleaning of suction apparatus, cauteries and sterilizers of all sorts, lighted diagnostic and operative instruments, such as bronchoscopes, urethroscopes, and, particularly, instruments in which a transformer or reducing coil is used.

Pertinent, therefore, to the present discussion would be the urging of training school and hospital executives to forbid the handling of sterilizers by the uninformed, only those being permitted to use sterilizers who have qualified after an intensive course of instruction. Nor is it to be expected that the inspection of sterilizers should be left to the pupil nurse. She is merely a chauffeur.

The mechanic is the hospital's chief engineer or the man-of-all-work who is especially trained in handling sterilizers, and who understands why "the wheels go round" when a certain valve is opened. It would not be too much to expect of the pupil nurse, however, that she be informed generally concerning the principles of physics involved in safety valves, exhaust pumps, vacuums, distillation and vaporization, in so far as these terms and processes affect her daily work in the operating room.

### Precautions to Be Observed

In the fifth edition of THE MODERN HOSPITAL YEAR BOOK, precautions to be observed in the handling of sterilizers were rather fully set down, and in order to add to the completeness of this discussion and because the statements made there are pertinent today, an abridgement of a portion of this article will be printed here.

It is of course, presupposed, that sterilization installations have been made strictly in accordance with the specifications of the designing engineers. Failure to observe the manufacturer's installation instructions, improper technique or the lack of routine care are almost invariably responsible for unsatisfactory service, although usually the first thought within the hospital is that the equipment itself is at fault. Extreme precaution should be taken before steam connections are fitted, to insure the elimination of all foreign particles from the pipes. A temporary pipe carried out through a window, fitted to the supply riser, will effectively remove such particles, including dope used by steam fitters to make the joints tight when pressure in the boiler is raised.

### Careful Instructions Needed

In new installations of sterilizing equipment, it is necessary for the engineer from the factory that manufactured the sterilizers, to delay his departure long enough thoroughly to instruct the individual who will be assigned to their operation. Just as one stenographer may favor a certain kind of typewriter, because she understands its build, and may be slow in using another, so is it true that a nurse can properly operate one type of sterilizer and yet may be at a loss to care efficiently for another. So that the first requisite is a competent individual who can be placed in charge of the sterilizer, and who will give the equipment such general care as is necessary in order that its full life expectancy will be realized.

The next point for consideration is the character of water to be used in the sterilizers, as this has a definite bearing on the care of such equip-

ment. The advantages of installing a water softener system where the mineral content of the water supply is high, which is a condition to be found quite generally throughout the United States, require but little explanation to the informed. The use of soft water prevents the deposits of lime and other salts, and obviates the necessity of taking down the equipment in order to dissolve such deposits, which is usually done through the application of commercial muriatic acid.

It should be remembered, however, that the use of hydrochloric acid, if employed in too great quantities of concentration may actually weaken the sterilizer and, hence, may predispose to accidents. Modern sterilizers are usually constructed of tin lined copper, with soldered joints. This acid, unless care is employed in its use, will quickly remove the tin lining and solder, and will even corrode the copper itself.

Where water softener service is not available, some other answer should be found, and in some small communities and suburbs of cities, rain water is stored by some hospitals. Where institution water softener plants are not available, it is possible to secure through nationally known firms small water softeners, which are suitable for the supply of water for sterilizing use.

### Weekly Inspection Desirable

While sterilizer manufacturers have aimed at simplicity in their efforts toward perfection and refinement, it is asking too much of a nurse or an orderly who has little knowledge of mechanical apparatus to be solely responsible for operation, inspection and maintenance of this technical equipment. As a matter of routine, therefore, it should be inspected at least once a week by the superintendent or by some competent person from the power plant, who has a knowledge of mechanics and steam pressure apparatus.

More valves are required for the operation of sterilizers in an average hospital than for any other group of fixtures outside of the power plant, and valves are a potential source of trouble. To insure effective sterilization, these valves must be in perfect working order, and at more or less frequent intervals a mechanic should inspect them to make sure that they are safe, that they are not worn too much and that they are being used properly. All valves, particularly on steam lines, should have the discs renewed as required, and they should be checked up at least once a month for this purpose. All such valves have renewable discs, hence the expense is negligible.

The door gaskets of dressing sterilizers must be replaced from time to time because, due to the

excessive temperature of the steam, these gaskets lose their resiliency and leakage results. Such replacements are simple and inexpensive.

The thermometers on water sterilizers should be checked up frequently for accuracy, and also to determine if the mercury column is split.

It has been stated that perhaps the most important adjunct to the pressure sterilizer is the safety valve and since this is so, this mechanism should be inspected at least once a week, the valve being lifted to be certain that it will function.

It should also be checked with the steam gauge to be certain that it will lift at the proper pressure. It is unusual to find any person about a hospital who is competent to test or adjust the pressure gauge. This should be done by the person who inspects the boilers in the power plant, and this duty may be performed at each of his regular calls. The boiler inspector is perhaps the most competent person who visits the hospital who could make such a check on these gauges. An accurate test two or three times a year or oftener may be made with a standard U. S. gauge, which should be available in the power house.

When the sterilizer is mounted on wall brackets the supporting wall is reinforced to carry the added weight. Occasional inspection is advisable here to make sure that the integrity of the mounting is maintained, since any sagging might affect a proper functioning of the apparatus. Similar precautions are advisable when heavy sterilizing equipment is placed in temporary buildings, in which there may be progressive sagging of floors.

The care of nickel-plate and other metal surfaces is important. Caution should be observed, however, in the matter of using any inflammable cleaning compound on gas heated sterilizers when in use. In fact, it is advisable not to clean metal surfaces when hot.

### What the Nurse Should Know

It is a good rule in every hospital to have a complete inspection of all sterilizing equipment by a good mechanic about twice a week, and oftener if conditions will permit. Such inspection will bring about immediate attention to all leaks in piping or valves, and will forestall the other complications that are likely to occur, not so much because of neglect or abuse, but due to the constantly changing personnel and lack of mechanical experience, which is essential to competent operation of this specialized equipment. In this connection it should be a part of the training of every nurse serving in the operating suite to have a basic knowledge of the technique of sterilization and the proper care of sterilizers.

When in doubt about the service being given by sterilizers, the efficiency of the process may be checked up through the use of fusible controls, and the employment of this test is recommended by many hospital authorities as a matter of routine. If the tests show inefficient sterilization, immediate investigation is necessary, and the mechanical expert of the institution should be called in. A leaky gasket, sticking valve and an unmelted sterilizer control are at once recognized, but the responsibility for the condition of the sterilizing apparatus belongs to a mechanical expert, who should make regular written and signed inspection reports.

### Keeping Equipment in Good Condition

A few general points to be considered in checking up sterilizers are as follows:

If the steam escapes around the door of the dressing sterilizer, replace the door gasket and also see that the door closing mechanism is in working order.

If the chamber pressure is short of the required 15 to 20 pounds, examine the pressure gauge and look for leaks in the door, generator or elsewhere. It may be said, however, that if this pressure is low, the trouble will likely not be found in the gauge. The engineer should be called to inspect the sterilizer, since there are so many places where trouble may be found that he will no doubt be the only person qualified to remedy the defect. Hence in the presence of a low pressure, the possibility is that the difficulty may exist outside of the sterilizer itself, such as with the heating equipment, its manipulation, or with connecting steam lines.

If sufficient vacuum cannot be obtained, examine the vacuum gauge, then the evacuating valve. Either the vacuum gauge or the evacuating valve is likely to be out of order. Insufficient vacuum is frequently due to lack of steam pressure. The exhaust pipe may be clogged, and in severe winter weather the end of this pipe that extends out of doors, may be covered with ice.

If valves leak about the stems, or if they cannot be shut off tightly, repack the stems or replace the discs.

When a hospital uses hard water, examine the water cylinder for presence of sediment indicating the need of cleaning.

Finally, it may be said that the hoary adage that relates to the wisdom of employing an ounce of prevention rather than applying a pound of cure, is certainly applicable to the question of maintaining sterilizing equipment in safe and efficient condition. Moreover, the efficient care of

sterilizers is a part of good administration, and while it calls for close attention, there is little actual expense.

A first-class mechanic from the personnel of the institution, who will give the required attention at regular intervals to this equipment, will insure the proper functioning of the sterilizers. Failure to provide for this service may result in inefficient performance and expensive repairs. The servicing of the equipment by manufacturers or by others outside of the hospital is an expense which, if not met by direct charge, must be absorbed by the whole hospital field. The servicing of equipment by manufacturers or others outside of the hospital is one of the best paying investments that the institution can possibly make. And in addition, all sterilizing equipment should be insured against explosion by the company carrying the liability insurance on the steam boilers of the hospital.

A service inspector as has been suggested above, should, on his regular calls, just as religiously examine the safety valves, steam gauges and the general condition of all the sterilizers in the hospital, as he does the equipment in the power house. It is the hospital's business to save life. It is no more its business to save the lives of its patients, however, than it is to protect and conserve the lives and energies of its professional and lay personnel.

### New York Hospitals See the Value of Radio

Of the fifty-six institutions comprising the United Hospital Fund of New York, twenty-six now have radio equipment, and a number of the remaining hospitals have expressed the desire to have such equipment installed in the near future.

Reports of the twenty-six institutions in which the sets have been installed, show that although there are other kinds of amusement, such as movies, concerts, entertainment by choirs and amateur acting, radio programs have proved the most popular. With the radio, those who wish to listen may do so, and those who are not in a condition to listen or who do not choose to listen, need not do so.

For convalescents who often find time hangs heavy, the radio offers invaluable relief, and in many instances it is often instrumental in hastening the patient's restoration to good health.

So popular has the radio become at Montefiore Hospital, New York, that twenty sets have been installed. The Sydenham Hospital, the first Hospital in New York to install radio, reports that radio is becoming more and more popular with the passing of time, and the patients at the New York Orthopedic Dispensary and Hospital are said to be "crazy about radio."

All indications are that radio, as a part of hospital equipment, has come to stay, and that the next few years will see the installation of radio sets in most institutions for the care of the sick.

# Editorials

## And Now the Hospital Health Inventorium

**I**T HAS been estimated that in this country, three and one-half billions of dollars are spent annually to meet the expenses caused by sickness of all sorts. This represents about 5 per cent of our national income. Of this huge sum, the doctor receives approximately 50 per cent, the dentist 20 per cent, the hospital 7 per cent and the nurse 5 per cent, respectively.

Any active and successful campaign to prevent illness must necessarily reduce the expenditure of this enormous sum of money, with a consequent and corresponding decrease in the incomes of the members of the professions purporting to prevent or relieve disease. Moreover, the fee that is exacted by the physician for an examination that has as its aim the prevention of sickness, does not compare in magnitude with the bill the doctor would submit for the treatment of a case of typhoid fever or chronic valvular heart disease.

It must be granted, therefore, that the physician's pleas to the public in behalf of periodic health examinations must have a strong altruistic foundation. Any scheme that spares the expenditure of a part or all of the eighty dollars which it has been estimated each family annually spends to care for those of its members who become ill, should appeal strongly to the masses. To prevent the dissemination of infectious or contagious conditions by frequent and widespread examinations of the members of a community, is laudable, even if not strongly appealing to those of selfish natures.

And yet, the idea of periodic examinations is not at all new, insurance companies and public health agencies having advocated and practiced some adaptation of this plan for not a few years. **THE MODERN HOSPITAL** has repeatedly urged the hospitals of this country to assume more positively their rightful leadership in community preventive medicine activities.

The American College of Surgeons has recently coined the term "health inventorium," and has issued a circular urging hospitals to offer to the family doctor the use of hospital space, laboratory and consultant facilities, in practically applying this principle. **THE MODERN HOSPITAL** commends this attempt to popularize the value of health, and the wisdom of preserving it. It perceives in this plan no drawbacks that are not

amply compensated for by distinct advantages. It will make possible a greater and more intimate service of the hospital to its community. None will gainsay this fact. In addition, it will enable the general practitioner to secure expert aid and advice in arriving at his diagnosis—in appraising the health assets and liabilities of the individual. It will be educational to the physician himself. Lastly, the plan will save, if efficiently perfected, health and money for the public generally. That those of neurotic trend become overanxious—more introspective—when told of certain physical defects, is granted. This is a fault of administering the plan, not of the principle underlying it.

If the 1,800 so-called standardized hospitals adopt and wisely practice this scheme, much good will no doubt result.

In the last analysis, the success or failure of the plan will hinge on such factors as the breadth of vision of hospital staffs in permitting nonstaff physicians to treat patients in their institutions, the tactful but firm methods that are employed to curb the untrained and the shyster, thus preventing the unworthy and unethical practitioner from abusing the good faith of the hospital, and the reaction of the public to the exhortations of the physician to seek medical salvation while yet there is time.

## A Life-Saving Precaution

**E**LSEWHERE in this issue will be found a discussion of the dangers that may arrive when hospital sterilizers are improperly operated or when their routine inspection and repair are neglected.

The pressure sterilizer is an apparatus which, properly handled, will largely guarantee a clean wound and a happy convalescence. Neglected and carelessly operated it may become an instrument of destruction—a veritable bomb with death-dealing explosive power.

Man has harnessed the giant, steam, so that it turns the wheels of industry, carries the caravans of trade across the land and bridges the oceans with fleets of commerce. But the irresistible power of this Goliath must be respected and understood.

It is feared that too little training is given those who handle hospital sterilizers. If a central plant could always be installed one man could be held responsible for its operation. Indeed some institutions are able to adopt this plan even though no centralization of equipment is practicable.

A weekly thorough inspection of all sterilizing equipment is highly advisable. The replacement

of worn apparatus is an act of prudence. The organization in the school for nurses of a class in elementary mechanics would, it seems, be a useful addition to the curriculum.

Have you inspected your autoclaves and water sterilizers lately, Mr. Superintendent? To do so today may be life-saving tomorrow.

### When Is a Hospital Ethical?

MUCH has been said regarding the improvement of hospitals during the past fifty years, both as to their physical appearance and their professional standards. Closer and closer is becoming the bond between the hospital and the medical profession and only occasionally does one hear hospitals criticized by men of medicine. Here and there will occur some unfounded attack upon out-patient departments but even this favorite subject is losing its popularity, and it is safe to assume that within a few years this much mooted question will be settled once and for all.

That hospitals have improved and that the medical profession and the hospital are cooperating in a much better fashion than ever before, is, of course, a matter for congratulation. It is, however, no reason to cease the vigilant work that has been done to improve the institutions of the country. Much remains to be done that can be accomplished only by whole-hearted cooperation of the hospitals and the medical societies throughout the country.

Perhaps one of the most forward steps that has been taken for a long time is the omission from the American Medical Association's register of hospitals of those institutions that could not measure up to accepted standards and were dropped from the registry because they were unethical in the eyes of the regular practitioner. Some of these were borderline cases and the next register will undoubtedly show a smaller number that have not qualified.

In the meantime the American College of Surgeons is making wonderful progress in its program of standardization, and its approval is a coveted prize by most hospitals.

Another standard is that established by most states for the approval of schools of nursing, so here we have three excellent standards as a guide to better hospitalization.

Recently a hospital superintendent essayed to offer sage advice on the problems of hospital administration. Yet his own institution is not only not approved according to all three of the established standards, but is distinctly disapproved by them. Fortunately he was speaking before but

ten superintendents, seven of whom run hospitals not accredited by the College of Surgeons, and four of these hospitals were omitted from the American Medical Association's register of hospitals, so he could do comparatively little damage.

The public, unfortunately, accepts the word "hospital" at its face value. The Ashland Boulevard Hospital, Chicago, whose head, Dr. Rongetti, is under sentence of death for murder, is termed a hospital, and is so classified by the city solely because it has ten beds, that being the only interest the municipality has in the subject. There are doubtless other hospitals equally bad and equally unethical, but until a patient or two dies under circumstances warranting a police investigation, the public will blindly accept them as worthy institutions.

In the face of these facts and for the protection of ethical hospitals, would it not be strategic to mention on letterheads, on annual reports, and in all publicity that the hospital has the approval of the American Medical Association, the American College of Surgeons and the state department of education? Could it be construed as braggadocio or as unfair for an ethical hospital to proclaim its ethics? Would the public be benefitted and wouldn't the hospital gain in prestige and good will?

### Half a Century of Progress

FIFTY years ago hospitals for the most part were death traps—dirty, dusty, overcrowded buildings of small, dingy rooms and dark, drafty halls. Clean operations and uncomplicated accouchements were the exception. Puerperal fever was an ever present threat.

At the Paris Maternity Hospital, out of 347 confinements between April 1 and May 10, 1856, 64 women died; in 1864, 310 deaths occurred out of 1,350 confinements.

In 1878, antisepsis in surgery and obstetrics was just beginning; the Sairey Gamp type of nurse was the rule; rubber gloves were not used in operations; ether was just beginning to be generally employed; local anesthesia was little practiced and first aid was a brand new idea. Koch had just worked out the life history of the bacillus anthracis, thus laying the foundation of his postulates, and had written his work "On Wound Infection." Appendicitis was still little recognized and was called perityphlitis; the x-ray had not been discovered; laboratory diagnostic methods were limited to a crude examination of the urine; the etiology of most diseases was a closed book; the idea of immunity was just

developing; curative sera were then unknown.

Half a century ago, the trained nurse was a rarity, hospital administration was not a profession, hospital architects were nonexistent, hospitals, such as they were, could be found only in the large centers of population and, at best, would not compare favorably with a modern almshouse. There were no dietitians, no physiotherapists, no laboratory technicians.

In less than the average life span, all of this has been changed. The modern hospital is a place of hope, of gentleness, of accuracy, a focus that draws upon every art, every science that may return the patient to health and usefulness. Will the next semicentennial witness a corresponding improvement? It probably will. The hospital, as we now conceive it, is a relatively new instrument. We are still far from realizing its potentialities for individual and community betterment; its manifold applications have yet to be worked out in their entirety. With time and application new fields of hospital usefulness will be developed. Great as has been the progress of the hospital field in the last half century, it will be even greater in the future, and along lines at present not even glimpsed—all to the physical salvation of humanity.

## Talking It Over

WHICH is better—frank and frequent recital of grievances as they occur or the bottling up of grievances and the final explosion when the cup of woe seems too full? Should the department head accept the mandates of her superior without comment until she has stored up and nurtured enough for a full sized complaint, or should she mention the wrong or fancied wrong when it occurs? Should the superintendent, on the other hand, keep silent on the department head's shortcomings until he has a whole list of inefficiencies or should he nail each little occurrence as it occurs? No attempt to answer these questions will be made here, but they make an interesting problem in ethics, psychology and philosophy for both the administrator and his lieutenant to work out in their spare time.

IN CHICAGO a surgeon who conducted a hospital has recently been convicted of murder and sentenced to death. In the same city a notorious beauty specialist is accused of being responsible for a patient having unnecessarily lost both limbs by an operation in an osteopathic hospital. Both of these surgeons were allowed to practice in the State of Illinois, despite numerous complaints. That one has been sentenced to death and the other is in danger of criminal proceedings is, of course, a matter of congratulation, but doesn't it come a little late? Shouldn't something have been done before the death of one patient and the crippling of another? If rotten politics obtains in this state, is it a reason why reputable hospitals should stand idly by? Every hospital in Chicago, and indeed

every hospital in the world, suffers when publicity is given to such cases, yet we who are in the hospital business know that neither case is at all typical of real practice in hospitals. It was recently stated that it wasn't the business of hospitals to be "quack busters," but when officeholders and political overlords are proved rogues, isn't it often a self-preservation measure for hospitals to drive out the charlatan and the shyster?

\* \* \*

AS THESE lines are being written bridge tables are being folded up and niblicks are being examined and tested. Bridge is said to be a mental stimulus and golf a physical stimulus. This is probably true, yet the fiend who plays bridge every night and the addict who plays golf every afternoon can't possibly have a good mind or a normal physique. Both are overstimulated; both are too rabid to be good company. The thirteen-spade hand and the hole-in-one rank foremost as uninteresting conversation. Moderation bespeaks sanity and temperate habits are always better than total prohibition or excessive indulgence.

\* \* \*

WHAT is the future of nursing? Is the graduate nurse to be a professional woman or a glorified maid? Are the nurses of tomorrow to be specialists in various types of disease as has been prognosticated by some, are they to remain in their present unsettled status or will they gradually settle down to maid service *de luxe*?

If the matter weren't so vital it would be good food for idle speculation, but because its importance is paramount the entire subject deserves much more serious consideration than it is getting. If maids they are to be, the better class of women will not be interested in the work; if they are to stay the way they are, in an unsettled condition, the work is too loose for future hospital and medical development, and if they are to be further professionalized, there is the danger of making the work so difficult that there will be an actual shortage of nurses.

\* \* \*

THERE is one commodity which should never be kept on the shelves of the physician's drug room. It should be continually carried in his heart and dispensed freely. The name of this substance is "Sympathy." Even in this age of science, there must be no sparing in the administration of this greatest of all soul and cardiac tonics. For the young physician to learn that he may be deficient in diagnosis and hazy in therapeutics, yet be professionally saved by the abundant manifestation of kindly sympathy for the suffering of others, is of greatest moment. Knowledge is silver, but human sympathy is golden. When these qualities co-exist in the physician, the patient is in safe hands. Are we, as hospital superintendents, grasping every opportunity to point out to the young intern the importance to him and his future, of being kind as well as wise?

\* \* \*

ISN'T it a fact that 90 per cent of the things that worry us never eventuate and the other 10 per cent are not worth while anyway. Then why worry? When trouble comes we are so busy trying to meet it successfully that we have no time for apprehensive fretting and if we have not frittered our energies in futile worry, we will experience the joy of emerging from the valley of the shadows into fields of sunlit flowers.

*The Modern Hospital Reading Course: Lesson XVII*

# Engineering, Maintenance and Repair

By EDGAR CHARLES HAYHOW, B.C.S.

Department of Management, New York University, New York

EVERY institution requires adequate facilities for the supply of water, light, heat, power and refrigeration. The operation of these mechanical adjuncts, together with attention to physical repair and upkeep, constitutes the function of the hospital's engineering department.

In general, the size and location of the hospital indicate the qualifications necessary in the department head. In the small institution a janitor or fireman will prove sufficient. An ideal arrangement for middle sized plants is to employ a licensed engineer, qualified in high pressure plants; one with sufficient practical mechanical experience to enable him to combine repair and maintenance problems with his general engine room responsibilities. The large institution needs a larger staff, with the department head a qualified academic or high grade stationary engineer. This officer is variously designated as "Superintendent of Buildings and Grounds," "Mechanical Superintendent," "Chief Engineer."

What index determines the type of chief engineer to employ? Between the small and middle sized hospitals the answer is determined by municipal ruling, in that plants operating high pressure boilers must employ licensed stationary engineers. All large institutions, of course, operate high pressure boilers. Superintendents and boards of trustees should not hesitate to employ competent supervision in the engine room. An experienced engineer may save his salary many times over by reducing maintenance costs and expenses for outside labor, by doing minor repairs himself and by keeping all machinery in good condition.

To the hospital executive, not of mechanical training or bent, the engineering department is apt to be unfamiliar ground and, in consequence, is often operated with none too rigid supervision. This is unfortunate. The conscientious executive will, through study, perfect his knowledge in these details. Usually, the new institution is planned, built and ready for operation before the employment of the engineer. Equipment has been selected and installed, the type of heat-

ing, ventilation and refrigeration selected and purchased.

As this entire chapter is primarily confined to operation and management, little reference will be made to mechanical construction, or types of machines generally employed. It should be understood, however, that no large building should be planned without skilled engineering consultation and advice. The reader is referred to the appended references for information concerning the relative value of the many types of mechanical equipment that are available.

The following are the major functions of the engineering department:

To heat the building adequately, economically and uninterruptedly.

To supply steam for the operation of laundry, kitchen, and professional equipment (sterilizers, etc.).

To maintain an uninterrupted lighting system in the institution.

To supply throughout the plant a system of refrigeration for the kitchen, pantries, laboratories, and mortuaries, and to furnish ice for household and medical uses.

To operate any mechanical systems of ventilation.

To maintain a uniform and sufficient supply of hot and cold water.

To supervise the necessary incinerator operations.

To arrange a proper system of ash removal.

To insure proper sewage.

To maintain and, in some instances, install proper systems of electrical equipment, such as telephones, professional calling devices, fire alarms and radio apparatus.

## Qualifications of Department Head

The engineer should possess, at least, a practical knowledge of all the aforementioned units of activity. He should be familiar with their installation, operation and repair. He should be able to supervise the personnel in plumbing, electrical, power plant, steamfitting and general repair departments. In the small plant he will of

necessity have to rely on outside skilled workers. No engineer should "tinker" with equipment beyond his knowledge, for he will create more trouble and expense than if he had done nothing. This is an important point. His qualifications and salary should be in keeping with his ability and the size of the institution. The hospital should expect to hire outside experts for work that is beyond his ability.

All repairs throughout the institution are supervised by the chief engineer and he should properly check and control the daily activities of his personnel through a system of inspections and reports. The engineer should be familiar with the fundamentals of carpentry and painting. He should possess, aside from his technical knowledge, sufficient executive ability and resourcefulness to keep the work moving, regardless of the routine and emergency obstacles that are encountered. He must be able to maintain efficiency for twenty-four hours a day and seven days a week.

### Personnel

The necessary personnel depends, in a great measure, upon the location, physical planning, and condition of the mechanical equipment, and the location and condition of the buildings, in general. It is natural that an institution poorly planned as to the various unit buildings—having additions here and there—with no semblance of coordination and equipment, sadly in need of repair, will require a much larger staff than a compact, well coordinated, modern institution. Superintendents of experience can give numerous instances of hospitals where a readjustment of mechanical activities and a thorough overhauling and replacement of the various units of plant machinery, would not only justify the initial expense, but would cut engineering maintenance costs in half.

For institutions of less than fifty beds, the personnel would largely consist of one janitor, serving also as general "handyman." He would care for the fire and engage in such minor repairs as need attention and replacement. All complicated installation and repair should be done by outside concerns. In small institutions equipment is more nearly comparable to the household type; low pressure is maintained, and sterilizers, kitchen, and laundry equipment run with gas or electricity. Natural ice is purchased or refrigeration is maintained with small unit installations.

For the hospital averaging one hundred beds, we need an engineer sufficiently experienced to supervise the plumbing, electrical and construction repairs. To be prepared for emergencies and to keep a constant supply of heat and power, it

is necessary to have a qualified employee on the premises in charge of engineering activities at all times. The staff would consist of an engineer (doing a large part of the repair) with an assistant helper (these men alternate for night and Sunday shifts), and a crew of two or three to cover twenty-four hour service, depending on eight-hour or twelve-hour shifts. A handyman, preferably a young man in training, is needed to assist in the daily routine and to act as relief floater on days off duty. One or more full-time painters will be required. Even with this skeleton staff it is necessary to call in outside assistance where highly skilled work is required.

For a large hospital, the staff is employed around the physical plant. For 250 beds or over the staff might include a supervising chief engineer, two licensed assistants and helpers (alternating between day, evening and night shifts), two plumbers, a helper, an electrician, a refrigeration man, and such carpenters, painters, and handymen as the work indicated. This suggested personnel will serve only as a guide and should be altered to suit the individual plant, according to the dictates of common sense. It should not be necessary for the large plant to contract outside for repairs, minor installations or simple construction. Naturally, new construction or installation of special technical equipment calls for outside counsel and assistance.

### Use Paid Consultants

Reference was made in the beginning of this series to the value of periodic consultation with experts in the various realms of hospital administration. Nowhere could paid consultation service be applied to better advantage than in the engineering operations. Competent engineers should welcome this help and its outside viewpoint. Repeatedly, engineers have failed to convince the hospital superintendent of the value or the need of certain new equipment or repairs; in turn, the superintendent has failed with his board. A consulting engineer secured through committees of the board can often easily demonstrate the wisdom of such an expenditure. Superintendents who are not especially familiar with engineering technique, should encourage visits from any of the board members who possess special knowledge along these lines.

A short review of the functions of the subdivisions of the engineering department should be of value to the student of hospital administration and is here presented in elementary form.

Electricity is used for two fundamental purposes, namely, illumination and power. Illumination includes lighting of the hospital and also

certain specialized uses of illumination, such as the nurses' call and doctors' paging systems. Power is supplied to laundry equipment—the washer, extractor, ironer and mangles. Electrical kitchen equipment includes mixing machines, vegetable parers and dishwashers. Throughout the modern plant, we find electric motors used to propel elevators, fans, ventilators, refrigeration plants, battery chargers, medical and surgical devices, physiotherapy appliances, x-ray machines, laboratory equipment and dental engines. A subsequent chapter will deal in detail with the many problems related to the specialized medical equipment mentioned in the above list.

### Electrical Systems

The source of electricity may be generators in the power plant or power lines from a public service corporation, or both. The question as to which system to employ is more a matter of electrical planning than management. Suffice it to say, the supply of electric current in the majority of municipalities is so standardized, its supply so constant and satisfactory, that there is an increasing tendency to rely upon the power companies, the hospital sometimes having an auxiliary generator for use in emergencies. The consulting engineer and directors will naturally study the problem closely before making a decision, taking into account factors of price, supply, maintenance costs and service. Most public service companies grant a much reduced rate if the hospital purchases its power in high voltage and transforms it to the lower voltages required for its many uses in the institution. This can be explained as comparable to wholesale rather than retail purchase; the larger the contract purchase, the lower the unit cost.

Electric current is divided into two classifications, direct (D. C.) and alternating (A. C.). "A direct current is a unidirectional current; one that always flows in the same direction. Such a current may vary in intensity (amperes), but always flows the same way."<sup>1</sup> "An alternating current is one that reverses its direction at regular intervals. To be more specific, it is usually taken as a current that reverses its direction at regular intervals, increasing from zero to its maximum strength and decreasing to zero with the current flowing in one direction, and then with the current flowing in the opposite direction, similarly increasing to a maximum and again decreasing to a zero."<sup>2</sup> Alternating current is supplied more generally than direct current. To quote from THE MODERN HOSPITAL YEAR BOOK, 1927, page 155, "Direct current is more flexible than alternating current for general pur-

poses and in a number of cases it is necessary to convert the current from alternating to direct for special apparatus. This applies especially in the case of motors for ventilating fans, where it is essential to keep them as quiet as possible, as alternating current motors are as a general thing noisy and run at too high a speed."<sup>3</sup> Direct current elevators are definitely quieter than alternating. These disadvantages may be met with soundproofing when direct current is not procurable.

The term cycle, often referred to in discussing alternating currents (as sixty cycles per second), means that the current referred to completes sixty cycles in one second; therefore, 1/60 second is required to complete one cycle. A transformer is a device whereby energy of alternating currents can be received at one voltage and delivered at another. Students discussing engine room activities will hear these technical terms and should be familiar with their meaning. Electric wiring will not be discussed as this is not necessarily a management problem. Experienced counsel should be solicited to make careful inspection of all wiring. This safeguards against fire and reacts favorably upon insurance premiums.

The management of elevator systems is usually a function of the engineering department. Schedules of hours for operators should be arranged. There should be rigid rules against operation of elevators by unauthorized persons. A careful periodic inspection of the elevator, its controls, cables, and other operating equipment should be carried on and recorded as a routine procedure. Even large hospitals have found it best to enter into an inspection and service contract with the manufacturers of elevators, usually for monthly inspection and emergency calls, when necessary. Liability insurance should invariably be carried and a proper inspection service will reduce the premium.

### Gas

A word concerning gas consumption. Gas is used mainly in the dietetic departments for cooking. In small hospitals it is used for heating of special equipment, such as sterilizers. It is occasionally used as emergency lighting. For the latter purposes, pipes should be exposed for detection of leaks. Where gas is used in operating rooms as an emergency measure, there is serious danger from explosion of ether, ethylene and other anesthetics. To avoid accidents most of the newer institutions use storage batteries for emergency lighting.

Check should be made each month as to gas and electric consumption costs, and comparisons

should be made with preceding months and years. Definite periodic rounds must be made to test and replace light bulbs. Record of the life of individual bulbs is of value. As far as possible, corridor lights should be operated from switches centrally placed, so that all unnecessary lights can be extinguished simultaneously. Considerable saving can be effected if lights in large rooms are controlled by several switches; otherwise, it is often necessary to turn on more light than is actually needed. Cooperation must be urged to decrease expense. Individual notices can be distributed and personal lectures are constructive, as are also occasional signs advantageously placed. A night watchman, though employed primarily to safeguard against fire and theft, can save his salary by turning off unneeded lights.

### Power and Heat

The power and heating plant of any fair sized institution gives rise to many technical problems, which are not understood or appreciated by the majority of hospital attachés. Education of the entire personnel in conservation of heat, steam pressure, etc., promotes economy. The chief executive must familiarize himself with the fundamental operating principles of heating and power control. Heat, hot water, and power for necessary mechanical equipment must be supplied and the slightest discontinuance of any of these services concerns the superintendent very materially. He should know enough of the details to check up intelligently the services of the power plant, and to foresee impending troubles.

Of important concern in power installation is proper determination of the volume and pressure of steam needed by the institution. Outside of heat and hot water, there are additional factors of laundry machinery, kitchen equipment, dressing, water, utensil and instrument sterilizers and refrigeration installation. Power plants are classified as low or high pressure units, and necessity of a qualified engineer for the latter has been mentioned.

The small plant needs only a low pressure system, and any equipment that cannot be supplied enough power from the central plant uses separate gas or electric connections. Institutions should not hesitate, if cost figures warrant, to accept the operation of a high pressure system. In plants of sufficient size it is invariably cheaper than gas and electricity.

In *THE MODERN HOSPITAL YEAR BOOK, 1926*, Neergaard and Sutton discuss "The Hospital Mechanical Plant."<sup>4</sup> This treatise deals with steam loads and reviews the needs of various equipment for different sized institutions.

What service does the superintendent expect of his power plant? Primarily, he expects it to function with the utmost safety. He will insist upon proper boiler care, cleaning and inspection, irrespective of a periodic inspection on the part of the underwriters. He will expect the plant to deliver the necessary power without interruption and he will compare power costs (mainly fuel) with similar plants, and with previous months and years. He will expect that all lines, traps, pumps, vacuum systems, valves and gauges will be in the best possible order.

A review of the methods of household and institutional heating includes fireplaces, stoves, hot air furnaces, hot water and steam systems. Fireplaces add coziness and cheer to public rooms in some hospitals and nurses' homes. They are nearly negligible for heating and expensive to operate. They assist ventilation, but there are more efficient means of securing fresh air. Stoves need scarcely be discussed, although many will recall their use in the military hospitals during the late war. Hot air is occasionally found in outside private houses used for housing personnel. Private homes, owned by and adjoining the hospital and used for permanent quarters often get heat, light and water from the central plant.

### Heating Systems

Steam and hot water systems are the accepted methods employed in heating institutions. We shall not discuss their relative virtues; suffice it to say that many good systems are available and it is possible to find one that will meet almost any set of requirements. The commonest hot water systems are the two-pipe forced or gravity circulation for steam; the one- or two-pipe vacuum or gravity return. To quote Neergaard and Sutton, "For the small hospital not using high pressure steam apparatus, the choice of the heat generating unit narrows down to a cast iron sectional boiler for either steam or hot water. Because of the simplicity of operation, the two-pipe gravity system should be used, whether water or steam is selected. . . . The two-pipe gravity hot water system, correctly installed, with pipes properly graded is the most satisfactory for a small hospital. Its cost is slightly in excess of steam, its radiators are a trifle larger, its mains are smaller, and the operating expense is lower. . . . In an institution housing from 100 to 500 patients, the choice from the standpoint of first cost and operating economy is, as follows: (1) Two-pipe vacuum steam system, the use of vacuum valves on the return insuring rapidity of circulation; (2) Two-pipe forced hot water circulation system."

Saving of heat is to reduce fuel costs. Success rewards the director who can train a staff to turn off the heat rather than open the window. Let him never forget the value of periodic, expert consultation with heating engineers.

Coal, oil, and natural gas are used as fuel for institutions. Geographical location usually determines the selection of fuel. In communities where a certain fuel is cheap and plentiful it is, of course, widely used. Coal as a fuel is divided into two general classifications, anthracite and bituminous, and the selection depends upon the cost factor, mainly. Anthracite is again subdivided into various sizes, egg, stove, pea, and buckwheat. In the majority of hospitals buckwheat is used, the size depending on the type of grates and equipment installation. When bituminous coal is used, special equipment must be installed to make it practicable and to prevent the smoke nuisance as far as possible.

The efficiency of coal is measured by its unit thermal content or B.t.u. A British thermal unit is the amount of heat required to raise the temperature of one pound of water one degree Fahrenheit. For those engaged in coal purchasing, seven principles are essential: source of supply, price, thermal content, ash content, storage facilities, type of delivery and dependability of dealer.

Large institutions can purchase coal direct from mine distributors. Other institutions contract their approximate seasonal consumption from wholesale dealers. When contracting for a seasonal supply, hospitals purchasing from smaller local dealers must satisfy themselves that a sufficient margin has been set aside to insure against a shortage, if their own storage facilities will not warrant a reserve supply. Small institutions should deal with reputable concerns and those offering a continued satisfactory supply, with occasional resource to a testing laboratory as a check of quality.

The engineer should carefully guard his coal

consumption. He should report regularly the amounts purchased, delivered, used and remaining. Ashes should be inspected for clinkers and incomplete burning. Some communities provide for the removal of ashes at public expense; in others, it is the responsibility of the institution. Cinders have a market value, and where large grounds are to be maintained or where building operations are contemplated, they may be used for roads and paths or as a constituent of "cinder concrete." If they are not needed for such purposes, attempt should be made to secure free cartage for their removal by someone who can use them.

Water is supplied through municipal or private agencies, the prices being usually determined by state public service commissions. Important features of water supply are the available supply and pressure. The institution's responsibility commences from the primary main, and all repairs in the plant must be borne by the hospital. A detailed description on plumbing equipment cannot, for lack of space, be attempted. In every plant there are actually miles of water pipe, the maintenance of which is no small part of the engineer's duties. Identification of various types of piping in the maze of pipe tunnels and shafts is aided by characteristic painted markings.

Brass is superior to iron as a material for pipes, especially those for hot water and steam. Corrosion of iron pipes materially hampers efficient water supply. Outside pipes are subject to cold and frost in winter, and blockage due to roots of trees making their way into pipe crevices in summer. Stoppage of sewers is often caused by carelessness in throwing waste material into water flushes.

Hospitals should make provision for water storage tanks to supply by gravity the necessary water in case of failure of the supply.

Excessive hardness of water is a factor to be contended with in many sections. This hardness is usually in the form of lime salts which deposit

### Review Work

1. What are the usual methods for fire protection employed in institutions?
2. Prepare rules for a fire drill, including all personnel and hospital stations and recommended procedures, for a 200-bed hospital.
3. Describe the various types of hospital refrigeration and give the more important advantages and disadvantages of each.
4. Discuss the various types of heating systems. What type is generally used in a fifty-bed hospital?
5. Define direct current, B.t.u., reducing valve, high pressure steam, safety valve.
6. What procedure would you recommend if a superintendent of a 300-bed hospital were confronted with a serious increase in water expense?

in the pipe lines and in a comparatively few years may cause complete stoppage. This state of affairs is to be avoided at almost any cost, or a complete repiping of a comparatively new building may be necessary. Water softening processes have been developed which are applicable to the largest building, and such a system should by all means be installed if the water supply is above the danger point of chemical hardness. These water softeners are expensive to install, but justify the expenditure. A supply of soft water is a great aid to the hospital laundry. It prevents (and even actually removes) deposits of lime or scale from the boilers in the power plant, and effects definite economy in soap consumption throughout the institution.

A few hospitals are so located as to be able to have their own private water supply. The preservation of purity of the water is then a definite responsibility of the hospital. If the water consumption is large, however, and other conditions are favorable, considerable saving can be made over purchase of water from outside sources. Auxiliary connection should be maintained with the outside source, however, to guard against emergencies.

The engineer should make a meter check on the amount of water consumed to prevent waste. Water is never cheap enough to justify its loss through leaking taps or otherwise.

Refrigeration is supplied by ice or by mechanical means. Mechanical refrigeration may be central or in individual units for each box. The three most acceptable systems are ammonia (absorption or compression), carbon dioxide ( $\text{CO}_2$ ) and sulphur dioxide ( $\text{SO}_2$ ) (compression). Ethyl chlorid is not much used for institutions. A few of the advantages and disadvantages of each system are:

**Ammonia Pro:** Operates under moderate pressure.

Leaks easily located.

Operation simple. Generally familiar system.

Reasonable power installation and equipment costs.

**Con:** Ammonia is combustible.

Dangerous even in small quantities.

A bad leak may force vacating of building.

**$\text{CO}_2$  Pro:** Compact installation possible. Odorless.

Harmless in small quantities. Not combustible.

**Con:** Heavy pressure required.

Difficult to locate leaks.

**$\text{SO}_2$**

**Pro:** Pressure moderate.

Self-lubricating.

System is compact.

Noncorrosive towards metals.

Provides for simple individual units.

**Con:** Dangerous in small quantities.

Corrosive action if moisture gets into system.

**Ethyl Chlorid Pro:** Harmless in small quantities. Least pressure required.

**Con:** Highly combustible.

Lubricating requires glycerin.

Necessity for large compressor.

Rules governing the operation of the refrigeration system should be conspicuously posted, as well as rules designed to prevent accidents. One person should be delegated to draw ice, and this should be someone who is familiar with the operation. The ice storage box must be ventilated, properly insulated and provided with sufficient drainage. The superintendent should be supplied with periodic reports of the work.

### Maintenance and General Repair

All mechanical maintenance should come under the immediate supervision of the chief engineer. Repairs are either house repairs or shop repairs, each divided among construction, electrical, plumbing, carpentry and painting. In large institutions separate repair shops are provided, although it is well for all repair requisitions to be sent to the engineer's office for allocation to the proper service. All requisitions for manufacture of new equipment or for unusual repairs should be forwarded to the superintendent's office for approval.

Each day the engineer should prepare a log covering in detail the activities of all of his sub-departments, the work accomplished, men on duty, number of working hours per job, unusual repairs, amount of coal received, consumed, and on hand, and copies of power and watchman's charts. The superintendent should O. K. this report. Care should be exercised that only emergency orders are telephoned direct to the engineer and that regular written confirmation is submitted, even for the emergencies.

There is no question but that every hospital should have its own staff for simple carpentry and painting procedures. Early repairing of buildings and equipment and repainting of small surfaces and soiled equipment save greater expense costs later on. Hospital practice recognizes this and artisans have long found place on the hospital's permanent staff. For a small hospital there would not be enough work to keep a

full-time painter or carpenter on the job, but even there a janitor-handyman is essential. Middle sized and large hospitals find it economical to keep a permanent staff on a full-time basis. Large institutions require a staff of painters to keep wards, private rooms, corridors, nurses' quarters and administrative quarters in presentable condition. There is incessant need for repair of building and furniture.

We hear a great deal from advocates of the paint spraying machine, who claim that it offers a superior finished product, less material used, and labor materially reduced. A separate location equipped with compressed air is needed for the work.

Facilities for carpentry repairs are also needed. Repair of furniture, doors, windows and floors, and alterations can well keep a staff occupied. It is only for extensive repairs or construction work that outside contracts need be let.

Each window or door screen and each awning should be permanently marked with some simple symbol identifying its location. Awnings in northern climates should be taken down during the winter, reconditioned and stored. A clean, dry storage space is essential. Customarily, screens are also removed and stored after the fly season. Screens should be repaired promptly when they need it, it being unwise to delay repairs until autumn. The managers of many large buildings equipped with copper netting screens find it desirable to leave the screens in place summer and winter. The contention is that removal, storage, and reinstallation of such screens damage them more than exposure to winter weather.

### Fire Prevention

It is the direct responsibility of the superintendent to insure safe measures of fire protection and control. Fire laws insist that proper extinguishing methods be accessible, and rigid inspections are carried on by inspectors of the National Board of Fire Underwriters. Three types of extinguishers are: (1) the sprinkling system; (2) the three-gallon chemical extinguisher; (3) the small chemical plunger extinguisher.

Automatic sprinkling methods are used in out of the way storerooms, paint shops, garages and x-ray storage rooms. Portable extinguishers should be placed in conspicuous places and periodically tested, and the date of the inspection noted. Periodic inspections of the hose, connections and nozzles should be made. Fire hose and proper feeders, axes, hooks, sand and water pails should be conveniently at hand in all buildings. Ambulances should be equipped with small standard extinguishers.

A complete fire drill schedule should be arranged, covering the entire plant, with each person assigned and each important station covered.

All staffs should be trained in the use of fire extinguishers. Invariably, the local fire department gladly cooperates in carrying on inspections, training and supervision of drills. Small hospital alarms can be arranged through telephone code systems; larger institutions by specially installed electric systems.

The care of the grounds in large plants is a definite responsibility of a superintendent of building and grounds or one of the assistant superintendents. Outside porters are assigned to the cleaning of the walks, courts, outside stairs or other properties. The removal of ice and snow from outside walks must be done within reasonable time after its presence. Special guards should be provided for street elevators, coal chutes and storage runways for accident prevention.

### Maintenance Record Forms

As important as financial records, patients' records and perpetual inventories, are cost records on plant machinery, maintenance and repair. Cost cards of all machinery are prepared with the full information as to manufacture, cost, location and estimated service. All inspection dates are noted and all repair costs estimated. A detail chart of the entire engineering department is recommended, showing locations of all machinery, pipes, valves and important plant equipment. Details of departmental functions, inspection routine procedures and special mechanical operations should be prepared in typewritten form for routine instruction purposes and for use in the event of a change in supervision.

In conclusion of this chapter, three fundamental points seem outstanding: (1) the need of careful and efficient planning of the entire mechanical installation during the construction period; (2) the importance of a definite routine for the engineering department; (3) the need of trained, periodic consultation to inspect the entire equipment, systems and operation.

These principles, together with a complete system of charts and records of performance, consumption comparisons and departmental expense control, will give the superintendent and the institution as complete and efficient a plant as can be desired.

### References and Collateral Reading

1. Croft, T. W., "Practical Electricity," pages 73-107.
2. Croft, T. W., "Practical Electricity," pages 76-113.
3. Sutton, Frank, *THE MODERN HOSPITAL YEAR BOOK*, 1927, page 155.
4. Neergaard and Sutton, "The Hospital Mechanical Plant," *THE MODERN HOSPITAL YEAR BOOK*, 1926.
5. King, A. G., "Practical Steam and Hot Water Heating and Ventilation," Henley Publishing Co., New York.
6. Gueth, O., "Refrigerating Engineer's Pocket Manual."
7. McCentice, H. J., "Principles of Mechanical Engineering."

## YOUR EVERYDAY PROBLEMS

*A department devoted to the informal discussion of problems arising in the everyday life of the hospital superintendent.*

[No attempt has been made to offer final conclusions relative to the questions considered in this department. THE MODERN HOSPITAL will gladly welcome further comment by its readers on any of these problems, or the presentation of other queries for discussion in later issues.—Editor.]

### Should Interns Be Permitted to Remove Tonsils?

Almost every hospital must conduct a tonsil clinic. Particularly in large institutions, this requires that one or more clinic days a week be set aside for this purpose, at which time from six to one dozen or more patients are operated upon. This entails the expenditure of considerable effort and time on the part of representatives of the nose and throat department. Frequently this work falls to an assistant laryngologist or perhaps to a resident officer who has become particularly skilled in performing tonsillectomies. The intern on this service is, of course, desirous of securing an opportunity to learn the technique of this operation. Its very nature makes it necessary that to secure this experience, the intern must do more than merely assist his chief. He must learn to wield the scalpel and snare, safely and skillfully.

It is a mistaken estimate of the difficulties likely to be encountered, and hence, the skill required, to consider a tonsillectomy as a minor operation. There results, without doubt, from time to time, needless and inexcusable mutilation of the throats of patients because of this false conception of the magnitude of this procedure. Here again may be applied the basic rule of all hospital work—the patient comes first.

If proper supervision can be given, and if the intern exhibits unusual skill in performing this operation, there is nothing that should prevent him from being permitted to do tonsillectomies. On the other hand, the hospital is in duty bound to require that this work be done with the greatest amount of skill and speed, and if these conditions cannot be met by the intern he should not be permitted to remove tonsils. Certainly the hospital has no right to turn this work over, without supervision, to members of the intern staff.

### Should a Surgeon Insist That His Anesthetics Be Given by a Paid Anesthetist?

This question was asked by a hospital superintendent who is having difficulty in convincing staff surgeons that anesthetics must in part, be administered by interns.

THE MODERN HOSPITAL has frequently commented upon the obligation which the hospital owes to its intern staff from the standpoint of supplying adequate instruction in anesthesia. Certainly a trained anesthetist will usually give a smoother and hence more satisfactory anesthetic than can young physicians who have yet to learn the science and art of the practice of this specialty. On the

other hand, when will interns have a better opportunity of safely learning to give anesthetics than in the hospital? And is not the hospital justified in insisting that surgeons aid in providing this instruction? Of course, no hospital director will insist upon any practice that in any way endangers the life or safety of the institution's patients.

Moreover, every institution must have an anesthetic department so well organized that interns may be efficiently instructed, and at the same time, the safety of the patient assured. Indeed, many state boards of medical education require in the case of each intern applying for a license to practice, a written certificate to the effect that such instruction has been given. To be sure, especially difficult cases, particularly those in which the risk is not a good one, may be, and should be, assigned to the well trained, paid, hospital anesthetist. It does not, however, seem just for surgeons to insist that interns shall not administer anesthetics to their patients, and the hospital, even though it employs a trained anesthetist, should not be required to rely entirely upon his or her services.

### Does a Medication Order Antedate the Hour at Which It Becomes Effective?

This problem recently arose in a hospital under the following circumstances: In that institution, it has been customary for all preoperative orders to be automatically cut when the patient returns from the operating room. The technique employed in preparing a patient for operation consisted of the administration of 1/6 grain of morphine sulphate, twice during the hour preceding that set for operation. The particular operative procedure carried out in this instance was performed under local anesthesia. The patient returned from the operating room one hour and a half later and gave evidence of having considerable pain. The physician's order on the chart permitted the administration of morphine sulphate, 1/4 grain, every four hours, for the relief of pain. This drug was administered in the prescribed dosage on the patient's return to the ward, which was two and three-quarter hours after the administration of the last dose of morphine. The patient soon exhibited signs of acute morphine intoxication.

The question arose as to whether there existed a fault on anyone's part for this condition, and as to whether a fourth hour medication order, beginning immediately after operation, should not have indicated to the nurse that the drug employed should not be given oftener than every four hours.

It is impossible for hospital rules to be so constructed that exceptions do not exist. The exercise of intelligence and good judgment on the part of both nurses and doctors is demanded. The nurse in this instance felt that since she was in possession of a written order for morphine,

this order having been placed on the chart to become effective after operation, and since the indication existed, the drug should be given. The physician contended that since a time interval between succeeding doses of morphine had been set, the nurse should have understood that the first dose following operation must not be hypodermically injected until this period of time had elapsed, since the last injection of the same drug. It would have been, of course, better, in this instance, if the nurse had consulted the physician as to whether a third injection of morphine would be safe.

It is unfortunate that a closer cooperation does not always exist between the physician who prescribes and the nurse who administers drugs. Whether or not it is good practice to have all medication automatically cut when the patient leaves the operating room, is questionable. On the other hand, this can be safely done provided the physician, as is usually the case, immediately visits the ward after the patient has been returned to his bed, and then plans his therapeutic program for the first two or three postoperative days.

While no actual blame can be placed upon anyone in this instance, the error can be said to have been one of judgment rather than of strict interpretation of the written order.

It is a good plan when writing orders for powerful drugs, to state definitely the frequency at which the drug may be administered, and if p. r. n., orders are to be left, to describe the exact symptom or symptoms to relieve which the drug is to be given. Standing orders for morphine, whiskey and other similar drugs should not be permitted.

#### May Assistant Visiting Physicians Write Orders and Notes on the Patient's Chart?

The lot of the assistant visiting physician is not an easy one. Unless he possesses exceptional personality and professional traits, the respect paid him by interns, nurses and others, is likely to be greatly out of proportion to his responsibilities.

The chief physician is looked upon, and rightfully so, as the final authority in the settlement of any question that concerns the patient. Indeed, the chief oftentimes keeps the intern so busy that he does not have time to make rounds with the assistant. Sometimes this lack of time is more apparent than real.

In some hospitals, a tradition has arisen that only the intern may inscribe on the chart, notes, orders and general information in regard to the patient's condition. Indeed, the intern sometimes has come to look upon the chart as his own personal possession, in the same manner as he might a manuscript prepared by himself. Hence, the intern comes to resent the writing by the assistant physician of orders and notes on the chart. This is particularly true when the assistant physician makes rounds in the absence of the intern.

The basis, however, of the assistant physician's relation to the hospital must be that of possessing all the rights, privileges and power of the visiting physician in his absence. It would be far better of course, if no rigid ruling were necessary in regard to this matter. Moreover, it would be an ideal situation if the assistant physician could immediately command, because of his age, experience and personality, the respect of the intern. If this is not possible, then it is certainly just and proper for the assistant either in the presence or in the absence of the chief, to make whatever notations upon the chart

he desires. The strict ethics, however, of the relationship between the chief or his assistant and the intern may be said to be that of consultant to a family physician. When this ideal arrangement can be carried out, the chief or his assistant will dictate to the intern, notes or orders which he desires placed upon the patient's chart, and will see that his instructions are followed.

In the last analysis, the members of the visiting staff are wholly responsible for the treatment of the hospital patient.

#### Can Diabetics Be Treated in the General Medical Ward?

The administrator of a hospital whose staff has repeatedly requested the installation of a metabolic division, has asked this question. The hospital board has contended that because of the size of the institution, and in consideration of its financial situation, it should not be put to the expense of establishing special diet kitchens and ward facilities for the treatment of this type of patient. It was felt that the diabetic could be safely and successfully treated in the general medical ward.

The rapid strides in the effectual treatment of metabolic conditions, particularly diabetes, which have been taken within the past half decade, have elevated this work to the position of a specialty. It is a well known fact that the isolation of the diabetic must be carefully worked out. The craving for carbohydrates in these patients is so strong, that they will disregard warnings given them by physicians and nurses, and indulge in foods that have been especially forbidden. It has been repeatedly observed that these patients will deliberately purloin food from adjacent bedside tables without the least compunction. Relatives will bring in food that may be harmful, and these articles being hidden about the beds, are consumed surreptitiously.

For these reasons, and also because when insulin is being used the most careful observation of the patient must be maintained, it is, without doubt, a wise step to set aside wards or rooms of sufficient size to accommodate these patients. Hence, except under the most favorable circumstances, the diabetic cannot be as successfully treated in a general ward as in special quarters. Moreover, not only should there be specialized physical accommodations for these patients, but also the personnel handling them should be well trained in the preparation of diets, the weighing of waste, the computation of caloric intake and the recognition of the signs and symptoms of insulin shock and on-coming diabetic coma.

#### Can the Hospital Forcibly Detain Any Type of Case?

It is a good general rule that no patient shall be forcibly required to enter the hospital, or shall be detained there against his will. The hospital offers its service to all those who require and desire it. There are, however, certain outstanding exceptions to this rule.

In contagious hospitals, local, state and federal statutes permit the forcible detention and intra-hospital isolation of patients suffering with transmissible diseases. There is little, if any, doubt as to the existence of the right of detention on the part of the hospital in these instances. In the general hospital, however, the right of detention is not so clear cut. In the handling of a case of tuberculosis, particularly in instances where there are young children at home, the hospital in most states,

has a right to refuse a requested discharge, providing social service investigation has proved the lack of proper facilities for the home treatment of the patient. Even though these facilities are at hand, the danger of the transmission of this infection to young children would morally warrant the hospital in refusing the request of the patient or his relatives for a discharge.

Of course, in instances where delirious patients demand discharge, there is but one course to follow. When the relatives of a critically ill patient demand a discharge upon the basis that they prefer to have their friend or loved one die at home, the situation is somewhat different. Even then, it is the duty of the hospital to urge that the patient be allowed to remain within the institution where better care can be given him. If relatives urgently demand the discharge of a patient, and perhaps wish to remove him in an inadequate and improper vehicle, the hospital superintendent would appear to have a moral right to refuse to allow the patient to leave unless the proper conveyance is supplied. In any event, the hospital should protect itself by securing a signed release of responsibility on its part.

Children suffering with vaginitis should not be permitted to go home where other female children are to be found. In some states the right of quarantine exists insofar as this condition is concerned.

The hospital's responsibility for the care of a patient cannot be said to cease simply because ignorant or biased relatives demand the discharge of this person. Moral suasion, of course, should be used, but in not a few instances, there is but little question that the hospital is at least morally justified in flatly refusing a discharge, when it is convinced that such a refusal is to the best interests of the patients.

### Has the Day for a Smoking Room in Nurses' Homes Arrived?

Two decades ago, one who asked such a question would have been considered lacking in many of the attributes of good judgment and good breeding. Today, as a result of the modern trend of smoking by women, many training school superintendents are in a quandary as to how to handle this situation. It is argued that young women will smoke clandestinely, even if rules are enacted forbidding this practice. It is believed by some that anti-smoking legislation must take the same course as the prohibition of social intercourse between interns and pupil nurses has taken in many places.

In some schools for nurses in this country, smoking is permitted. In others, while it is not openly approved, there is no active campaign against it. Many old-school hospital administrators and superintendents of schools of nursing have set their faces against relaxing in any degree the effort to enforce rules prohibiting smoking among pupil nurses. True it is that the present day public attitude condones this practice.

THE MODERN HOSPITAL can express no rigid opinion concerning a policy that is certainly more or less affected by the type of hospital, its geographical location, and the personal beliefs of its supervisory officers. Physicians, however, feel that excessive smoking is deleterious to the health of both young men and women. That there is a danger in many localities of damaging the reputation of the school for nurses by recognizing the necessity of smoking among young women, and by setting aside a room for this purpose, cannot be doubted.

It is urged by many informed persons that, if for no other reason than the preservation of the health of young

women who are already undergoing a severe physical strain, training school superintendents and their medical advisers, should not easily yield to what appears to be a growing demand. Morbidity statistics among student nurses are already too high, and even though the trend of modern living seems to be toward a spread of smoking among young women, the school for nurses should, as a public health measure, discourage the extension of any practice that might be harmful to the health of the student.

### Should the Hospital Superintendent Attempt to Maintain Office Hours Strictly?

It is not an uncommon complaint, when visiting physicians and others desire to consult with the hospital superintendent on institutional matters, that he is not to be found in his office. Indeed, it is the opinion of some that the superintendent who is not continually at his desk for many hours during the day, is not properly carrying out his duty to the institution. It can be just as truthfully contended that the superintendent who does spend the major portion of the day in his office, cannot be as well aware of conditions throughout his institution, as one who rightfully apportions his time between the making of rounds and office work. On the other hand, if he were to adhere too strictly to definite office hours, a hardship might be worked on those who have come from a distance to consult him concerning matters vitally affecting the welfare of relatives who are ill in his institution.

The superintendent must so arrange his work that he is available in the greatest possible degree to those calling upon him, but he cannot be in two places at the same time. Time must be found both for round-making, inspections and other time-consuming but vitally important matters, and for the performance of office duties, which may consume most of the day—or some one of these duties must wait upon the superintendent's convenience. It is a good plan so to arrange the day's work that for a certain period in the morning, for example, from nine to eleven, the superintendent is always to be found in his office. Perhaps an additional period of an hour or more could be set aside during the late afternoon for this purpose.

It is not difficult to educate the members of the institutional personnel so that they will not expect to find the administrator in his office except at certain stated periods. It is more difficult to inform the public as to this matter. When a capable and tactful assistant or secretary is to be found at or near the superintendent's desk, most matters can be adjusted so that his absence is not remarked. An efficient call system, which facilitates the location of the superintendent, even though he is not actually in his office, is useful. A trained office assistant, who is informed as to where to secure information desired and as to how to handle routine and even moderately unusual situations, may spare the superintendent much loss of time in handling details.

As a general thing, it can be said that it is a wise administrative policy to set aside rather definite office hours, which the superintendent will endeavor to keep with the same care as does the physician his office periods. Such office hours will often be interrupted by the necessity of the superintendent's presence elsewhere in the institution, and must therefore be considered as rather flexible. If such office hours are set aside, sufficient time must be provided for routine daily administrative rounds. Hospital superintendents have duties that are as important as those that devolve upon a clerk who spends much of his time at a desk.



## *If you would see an X-Ray Machine standing up under the Supreme Test-*

visit the Coolidge Tube Department of the Victor factory in Chicago, where every Coolidge Tube sold in the United States is manufactured.

Here you will see standard Victor equipment—identically the same as sold to the Medical and Dental professions—used in the exhausting and testing of tubes. These machines are in continuous operation for nine hours a day, every day. Running at more than their rated capacities and subjected to more than normal strains, due to the gas present in the tube during all but the final stages of exhaust, tending to set up high frequency surges which in turn produce abnormally high voltages.

In this department you will see standard Victor machines that have been used for this purpose for years. A Snook machine, for instance, shows a record of ten years in the department and was still in good operable condition when

recently replaced by another Snook of a later model. In fact, the only time a replacement is made on any type of machine is when a later model becomes available.

The equipment now in use in the Coolidge Tube Department includes 6 Snooks, 2 Snook-Specials, 7 5"30 M. A. Transformers (as used in the Victor Stabilized Fluorographic and Radiographic Unit and the Victor Stabilized Mobile Unit) and 2 "CDX" transformers. The filament transformers and regulators, overhead switches, meters and stabilizers are likewise standard Victor equipment.

When apparatus is put to this supreme test, under the hardest conditions imaginable, the manufacturer's confidence in his product is well founded, and his claims backed up by convincing evidence.

## VICTOR X-RAY CORPORATION

Manufacturers of the Coolidge Tube  
and complete line of X-Ray Apparatus



Physical Therapy Apparatus, Electro-  
cardiographs, and other Specialties

2012 Jackson Boulevard Branches in all Principal Cities Chicago, Illinois, U.S.A.

A GENERAL ELECTRIC



ORGANIZATION

## NEWS OF THE MONTH

### Psychiatric Hospitals Organize to Promote Mutual Interests

An association composed of twenty-four private hospitals devoted to nervous and mental diseases has been organized and includes sanitariums in the states of Ohio, Illinois, Iowa, Wisconsin, Kansas, Oklahoma, Missouri, Virginia and Tennessee. The association is to be known as the Central Psychiatric Hospital Association. Its object is to promote better understanding and cooperation among mental and nervous hospitals, to standardize and elevate their work to a high scientific plane and to educate the public regarding their problems.

Plans for the organization of such an association have been under consideration for several years, but did not materialize until a meeting was held in June, 1927, during the convention of the American Psychiatric Association in Cincinnati. The second meeting was held in Minneapolis, Minn., in conjunction with the Central Neuropsychiatric Association and at that time the following officers were elected: Dr. T. A. Ratliff, Cincinnati, Ohio, president; Dr. Russell C. Doolittle, Des Moines, Iowa, vice-president; Dr. D. A. Johnston, Cincinnati, secretary-treasurer; Dr. Frank Norbury, Jacksonville, Ill., and Dr. Karl Menninger, Topeka, Kans., councillors.

On December 14, 1927, the council of the association met in Chicago with a committee composed of Dr. L. Rock Sleyster, Wauwatosa, Wis.; Dr. George P. Sprague, Lexington, Ky., and Dr. H. Irving Cozad, Cuyahoga Falls, Ohio. At this meeting the constitution of the association was revised and topics of common interest to mental and nervous hospitals were discussed.

The next meeting of the association will be held in Minneapolis, Minn., during the sessions of the American Psychiatric Association, to be held June 5 to 8.

### Nurses' Guild Holds Annual Banquet

The annual banquet of the International Catholic Guild of Nurses was held April 23, at the Palmer House, Chicago.

The program for the evening, planned by Lyda O'Shea, president of the guild and chairman of the program committee, proved entertaining as well as educational. Among the prominent speakers were Judge Francis S. Allegritti, who spoke on "The Nurse as a Citizen;" A. M. Shelton, director, Department of Registration and Education, Springfield, Ill.; Rev. E. F. Garesché, S.J., Milwaukee, Wis.; Dr. E. T. Olson, superintendent, Englewood Hospital, Chicago, and Edward M. Kerwin, Chicago, president of the advisory board of the guild. Phil Grau, Milwaukee, acted as toastmaster.

A musical program of classical and popular songs was given by Teenie O'Shea, Chicago, and was greatly enjoyed.

The Chicago hospitals gave cordial support in the planning of the banquet, many reserving one or more tables

and some taking advantage of this opportunity to entertain their graduating classes. Many representative nurses, among whom were Nan Ewing, Ravenswood Hospital, and Mary Anderson, Englewood Hospital, acted as hostesses, and helped to stimulate good fellowship and make this social occasion an opportunity for nurses to become better acquainted with each other.

### Opening of Medical Center Draws Crowds

The medical center which has been under construction for three years at One Hundred Sixty-eighth street and Broadway, New York, was opened for public inspection March 16. More than fifteen thousand visitors wandered through the wards and along the miles of corridors. Six units were opened. They were the Presbyterian Hospital, the Sloane Hospital for Women, the Squier Urological Clinic, the Presbyterian Hospital School of Nursing, the Harkness Pavilion and the Anna C. Maxwell Hall for Nurses. Nurses acted as guides for the visitors.

On March 19 the Presbyterian Hospital and Vanderbilt Clinic facilities were placed in service, and on April 1 the other completed units of the center began to accept patients.

### Clinical Tour of Europe Starts in May

A group of physicians will leave New York, May 26, for a clinical tour of Europe, sponsored by the American College of Physical Therapy. Many doctors have signed up for the tour, both for the stimulating contacts with European methods and progress and for the refreshing antidote to confining work. Preliminary lectures are to be given on board ship, to familiarize the group with what to expect at the different clinics to be visited. Trips to twenty-one hospitals and clinics in England, France, Switzerland, Austria, Germany and Denmark have been planned. In London St. Bartholomew's, Middlesex, London General and Lord Trelor Hospitals will be visited.

### Crippled Children Receive Free Care

The Community Chest and the Central Council of Social Agencies of New Orleans sponsored a movement of the orthopedic surgeons to examine and diagnose the condition of all crippled children brought to the free central clinic on March 13, 15 and 17. The object of this move is to bring to the attention of the residents of New Orleans the fact that the hospitals, when necessary, will give free treatment to indigent crippled children. It will also make them realize that the earlier in life a crippled child is treated, the better are his chances for relief and possible recovery.



## For Better Safety

*THE open cracker barrel and kraut jar of the old fashioned grocery store are gone, along with most of the other things of twenty years ago. Milk on the doorstep is one of the few that remain—and milk is the most highly perishable of foods.*

### *The New Way*

Milk in sealed cans from the grocer has taken the place of the doorstep method in many hospitals and in thousands of homes. Every question, problem or doubt about the safety and wholesomeness of the milk supply is answered and settled by this form of milk.

### *Think of These Qualities*

**RICHNESS!** Evaporated Milk is concentrated by removing sixty per cent. of the water—is more than twice as rich as ordinary milk.

**SAFETY!** Evaporated Milk is sterilized in sealed cans—is absolutely free from any germ or bacterial life.

**PURITY!** Evaporated Milk is pure milk—nothing added to it—its purity absolutely protected by the sealed container.

**CONVENIENCE!** Evaporated Milk keeps fresh and sweet on the pantry shelf—equal to every demand of the household

for cream or for milk. Every grocer has it.

**ECONOMY!** Evaporated Milk takes the place of cream—at less than half the cost—and makes better food. For every milk use, it costs no more—in many places less—than ordinary milk.

### *No Excuse*

There is no reason for any baby to die, for any child to suffer illness, or for any person to have less than perfect health through lack of safe, wholesome milk in any city, town or village in America.

### *Send for Our Booklets*

EVAPORATED MILK ASSOCIATION  
992 Illinois Merchants Bank Bldg., Chicago, Ill.  
Please send me, without cost, your  
booklets about Evaporated Milk.

Name \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

# EVAPORATED MILK

*Richer~safer~more convenient~more economical than any other milk*

*Keeps fresh and sweet on the pantry shelf*



## Personals

E. F. TRENCH has resigned her position as superintendent of the Woman's Hospital, Montreal. The position has not yet been filled. Miss Trench has been with the Woman's Hospital for fourteen years.

H. A. CHAPIN has recently been appointed superintendent of the San Jose Hospital, San Jose, Cal.

C. O. STIMMEL is acting superintendent of the Flagler Hospital, St. Augustine, Fla., pending the appointment of a permanent administrator by the board of trustees.

DR. T. RESTIN HEATH has been appointed superintendent of the Bethany Hospital, Kansas City, Kans. Dr. Heath was formerly medical superintendent of the Flint-Goodridge Hospital, New Orleans, La., and has been succeeded there by CAPT. H. W. KNIGHT.

DR. BRUNO S. HARWOOD, formerly head of the sanitary department of the board of health on Staten Island, N. Y., has resigned and will assume the superintendency of a tuberculosis sanatorium in Sullivan County, New York.

DR. JOSEPH TURNER, formerly assistant director of Mount Sinai Hospital, New York, has recently been made associate director of that institution.

DR. MAURICE H. REES has become acting professional director of the Colorado General Hospital, Denver, Colo., succeeding DR. EDGAR A. BOCK, who recently resigned.

BERTHA HARMER, R.N., B.S., A.M., has been appointed director of McGill University School for Graduate Nurses, Montreal. Miss HARMER is the author of the first book on teaching in nursing. She succeeds to the position left vacant by the death of FLORA M. SHAW.

DR. JOHN H. KORNS has been appointed superintendent of the Rocky Crest Sanatorium, Olean, N. Y.

DR. CHARLES E. SHULTZ, formerly health director at Bloomington, Ill., has been appointed superintendent of Fairview Sanatorium, Normal, Ill. LYDIA HOLMES was in charge of the institution prior to his arrival.

DR. NELSON A. BRYAN, formerly of Atlanta, Ga., has sailed for Hwanghsien, China, where he will take up work in connection with the Southern Baptist Mission Hospital. Dr. Bryan will be the only American physician connected with the hospital.

DR. MICHAEL A. CUNNINGHAM has become medical director of the Holy Cross Sanatorium, Deming, N. M. Before receiving his new appointment, Dr. Cunningham had been assistant superintendent of the State Sanatorium, Oakdale, Ia.

DR. WILLIAM W. BLACKMAN has recently been appointed medical director of the Prospect Heights Hospital and Brooklyn Maternity, Brooklyn, N. Y.

FLEDA EZZELL has been appointed superintendent of the City-County Hospital, Granger, Tex. She is filling the position vacated by GRACE STEWART who resigned recently.

MRS. ESSIE INGRAM HOOD has been appointed to succeed MARGARET YOUNG as superintendent of the Springfield Baptist Hospital, Springfield, Mo.

DR. H. A. BURNS, formerly with the United States Veterans' Hospital, Fort Snelling, Minn., has been appointed assistant superintendent of the State Tuberculosis Hospital, Walker, Minn. DR. J. E. DOUGLAS, whose place he is taking, has gone to Webb City, Mo.

ARTHUR O. BAUSS, who, for nearly eight years, has been superintendent of the Mary Day Nursery and Children's Hospital, Akron, Ohio, has recently been appointed superintendent of the Flower Hospital, New York City.

DR. R. GEORGE MINOT, Boston, has been appointed by the Boston City Hospital to succeed the late DR. FRANCIS W. PEABODY as director of the Thorndike Research Laboratory, which is connected with that institution. Dr. Minot is well known for his liver diet treatment for pernicious anemia.

CORINNE B. HENDERSON has been appointed superintendent of the Memorial Hospital of Henderson County, Wyo. ELIZABETH SHELLABARGER, who was formerly superintendent of that institution, has been appointed to make a complete survey of all schools of nursing in Arkansas for the Arkansas State Board of Nurse Examiners.

DR. EDWARD R. LINDER has been appointed governor of the Battle Mountain Sanatorium, Hot Springs, Ark.

DR. V. L. GOODWILL recently retired as medical superintendent of the Falconwood Hospital, Charlottetown, Prince Edward Island, and his place has been filled by DR. J. W. MCINTYRE. Dr. Goodwill is a specialist in mental diseases and intends to take up private practice.

DR. HERBERT L. MANTZ, formerly medical director of the Kansas City Tuberculosis Hospital, Leeds, Mo., resigned to take a position as superintendent of the General Hospital, Kansas City, Mo. DR. GEORGE C. LEE has been appointed to fill the vacancy left by Dr. Mantz.

J. J. HOLLISTER, former assistant superintendent, Mount Sinai Hospital, Cleveland, has assumed the duties of superintendent at the Washington Park Community Hospital, Chicago. GEORGE W. MILLER, who recently resigned from the position being filled by Mr. Hollister, has gone south on an extended vacation. The hospital is about to open a campaign for a \$200,000 endowment fund.

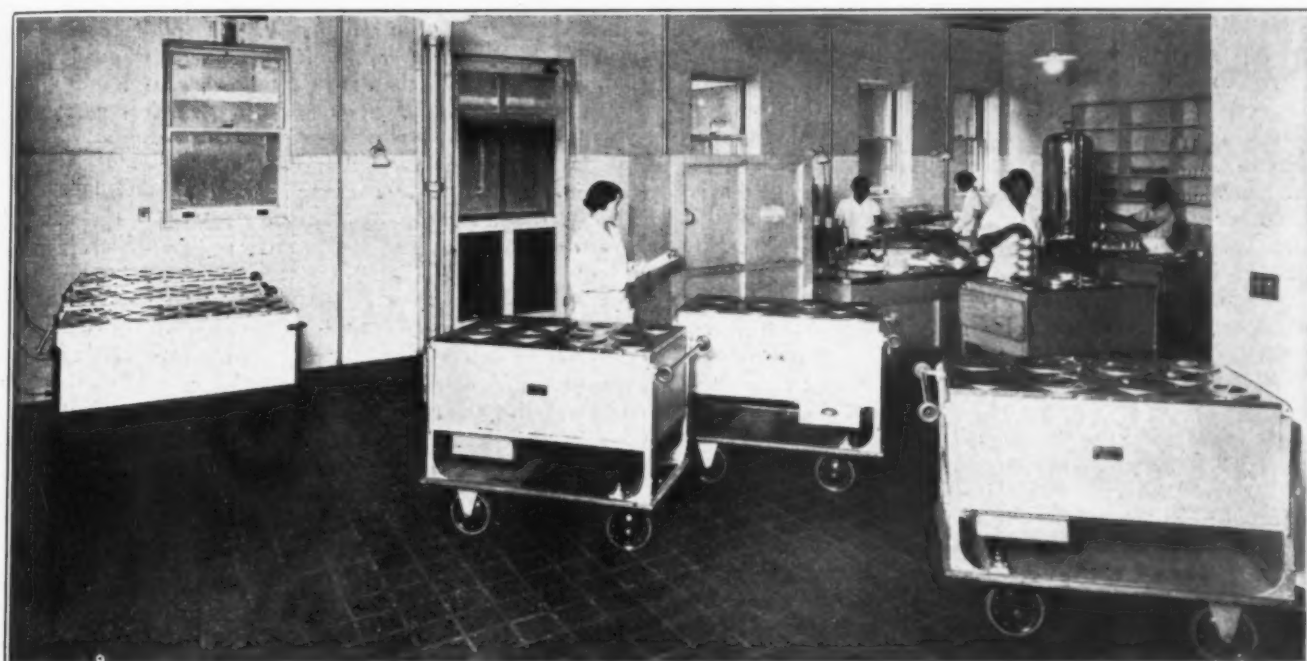
DR. STEPHEN DOUGLAS, who resigned his position as medical director of the Franklin County Tuberculosis Sanatorium, Columbus, Ohio, has been succeeded by DR. C. O. PROBST.

MIRA MAE JACOBSON is the new superintendent of the Grand Island General Hospital, Grand Island, Neb.

DR. ROBERT A. GAUGHAN has taken the place of the late DR. WALTER A. LATHROP as superintendent and chief surgeon of the Hazleton State Hospital, Hazleton, Pa.

F. M. BROOKS has been appointed business manager of the Buffalo General Hospital, Buffalo, and has taken over the duties of that position. Dr. Fraser D. Mooney is acting superintendent of the institution.

# Mount Sinai, Cleveland, served nearly 500,000 meals in 1927 with an Ideal System



Uninterrupted service day in and day out marks the efficiency of Ideal Conveyors. The satisfactory experience of Mr. Frank Chapman, director of Mount Sinai, is the experience in hundreds of hospitals where Ideal Systems are used.

Ideal Systems take care of the proper delivery of the food from the kitchen to the patient. Distance is no object. Time makes little difference. Remote, out-of-door wards are served as satisfactorily as dining rooms right off the kitchen.

For Ideals keep hot food hot and cold food cold. They eliminate waste, cut down labor costs, and do away with meal-time confusion.

Built in many models and sizes, both electric and thermatic. The particular types suited to your Institution can be decided upon after con-

sultation with one of our service men. Our organization specializes in this one branch of hospital management.

## THE SWARTZBAUGH MFG. CO. TOLEDO, OHIO

Associate Distributor: The Colson Stores Co.,  
Cleveland, Ohio

with branches in

Baltimore  
Buffalo  
Chicago

Detroit  
Boston  
Cincinnati  
St. Louis

New York  
Philadelphia  
Pittsburgh

Pacific Coast General Office and Warehouse, Los Angeles

Operating Branch Sales and Display Rooms

San Francisco

Tacoma

Los Angeles

Portland



Monel Metal is used  
in Ideal Systems

# *Ideal*

## Food Conveyor Systems

*Found in Foremost Hospitals*

## Among the Associations

# Record Attendance at Pennsylvania Meeting

WITH a registration of approximately 350 hospital people the seventh annual meeting of the Hospital Association of Pennsylvania, held in Pittsburgh, March 27 to 29, established a new record in attendance for state meetings in the United States.

It was the consensus of opinion that the conference was the most successful that has been held in that part of the country, and the credit for the success of the meeting was given to the fact that there were fewer set papers and many more round table discussions than have heretofore been indulged in.

Dr. Henry K. Mohler, medical director, Jefferson Hospital, Philadelphia, president of the association, presided at all the sessions. The first session, on Tuesday, March 27, was opened with a short invocation by the Rev. Dr. E. J. Van Etten, followed by an address of welcome by Mrs. Enoch Rauh, director, Department of Public Welfare, Pittsburgh. The response on the part of the association was given by Dr. George W. Reese, superintendent of Trevertin, Shamokin and Mount Carmel State Hospital, Shamokin, Pa. Doctor Mohler closed the afternoon session by the presentation of the president's annual address, in which he stressed the legislative work that was to be done by the association, urging greater

publicity for hospitals and mentioning many of the problems in administration that the hospitals are facing today.

An interesting trip was planned by the local committee under the direction of Dr. G. Walter Zulauf, superintendent, Allegheny General Hospital, Pittsburgh. The Children's Hospital, the new nurses' home of Mercy Hospital and the new laboratories of the Western Pennsylvania Hospital were visited by practically all of the superintendents present. Tuesday evening was left open for a number of theater parties that had been planned.

On Wednesday morning William F. Marsh, Pittsburgh, gave the opening address on "Safeguarding the Hospital's Income by Controlling Patients' Accounts Receivable." This was followed by a paper read by A. B. Buckeridge, manager, Pittsburgh Credit Bureau, Pittsburgh, on "Modern Credit and Collection Methods." Mr. Buckeridge urged the members of the association to join their local credit bureau as a protection against bad accounts. Henry G. Yearick, superintendent, Pittsburgh Homeopathic Hospital, Pittsburgh, presided at the first round table, at which problems of administration and finance were discussed.

Wednesday afternoon was given over to a session on nursing with a paper by Janet M. Geister, R.N., American



*A group of delegates who attended the meeting in Pittsburgh.*

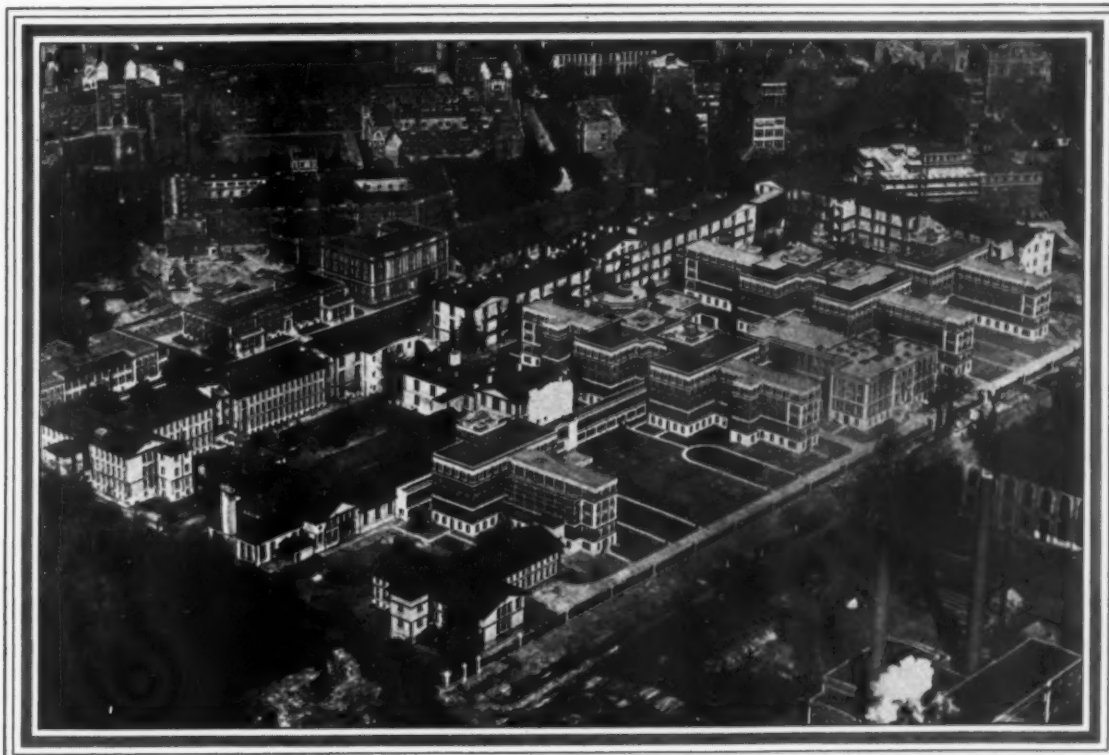
150 Pounds Pressure



CRANE VALVES



2500 Pounds Pressure



Airplane view of Philadelphia General Hospital, showing new construction in the foreground and the old building in the rear. Architect: Philip Johnson. Plumbing Contractor, Nicholas Connolly. Crane plumbing was installed.

## *But Crane Co. serves the small hospital, too*

Because major installations of Crane plumbing and heating materials are usually pictured in this series of advertisements, the impression may have gained currency that Crane Co. is at the service of large hospitals only.

The fact is that Crane Co. is constantly and consistently rendering counsel and supplying materials to small hospitals as well as large. The size of a contemplated installation in no way affects Crane interest in the problems involved.

To those who know only of Crane Co. ability to be of service in connection with very large hospitals, we shall be pleased to send interesting and logical indication of our specific experience with smaller hospitals. No matter the size, whether ten-room or a thousand, your hospital can benefit from extensive Crane experience in the highly specialized hospital field. A catalogue of hospital fixtures and appliances will be sent to interested hospital executives on request.

# CRANE

*Address all inquiries to Crane Co., Chicago*

**GENERAL OFFICES: CRANE BUILDING, 836 S. MICHIGAN AVENUE, CHICAGO**

*Branches and Sales Offices in One Hundred and Sixty-six Cities*

*National Exhibit Rooms: Chicago, New York, Atlantic City, San Francisco, and Montreal*

*Works: Chicago, Bridgeport, Birmingham, Chattanooga, Trenton; Montreal, and St. Johns, Quebec; Ipswich, England*

**CRANE EXPORT CORPORATION: NEW YORK, SAN FRANCISCO, MEXICO CITY, HAVANA**

**CRANE LIMITED: CRANE BUILDING, 1170 BEAVER HALL SQUARE, MONTREAL**

**CRANE-BENNETT, LTD., LONDON**

**CIE CRANE: PARIS, BRUSSELS**

## Among the Associations

Nurses Association, New York, on "Nursing Care for the Modest Purse." This was followed by a round table on nursing conducted by Jessie J. Turnbull, R.N., superintendent, Elizabeth Steel Magee Hospital, Pittsburgh.

The annual banquet which is always a feature of the Pennsylvania meeting was held on Wednesday evening with Doctor Mohler presiding. Charles Milton Newcomb, *Cleveland Plain Dealer*, Cleveland, delivered a discourse on "The Psychology of Laughter," and music was supplied by the Pittsburgh Criterion Male Quartet, and an orchestra.

On Thursday morning H. S. Keyser, Department of Welfare, Commonwealth of Pennsylvania, Harrisburg, delivered the first paper entitled, "Is the Modern Pennsylvania Hospital a Good Samaritan?" He quoted many figures concerning the 149 state-aided hospitals in Pennsylvania, and outlined the work that is being done, both in the department of welfare and among these hospitals.

The only other paper at this session was entitled, "Hospital Costs and Charges," by John A. McNamara, executive editor, *THE MODERN HOSPITAL*. It was decided by members of the association to secure a few reprints of Mr. McNamara's article to use in furthering the publicity campaign which is being inaugurated in that state. Copies were to be sent to trustees, and the entire matter of costs and charges was to be taken up in the local newspapers. At this session the reports of the committees were read.

### Round Table Arouses Interest

The last session of the meeting was held Thursday afternoon and was opened by Sister M. DePaul, Misericordia Hospital, Philadelphia, with a paper on "The Practical Operation of a Central Dressing and Supply Room, and Its Advantages." A pamphlet listing the equipment required and illustrated with a plan of the surgical dressing room in Misericordia Hospital was distributed to the delegates. Sister DePaul's paper was discussed by Sister M. Etheldreda, superintendent of nurses, Mercy Hospital, Pittsburgh. A round table on "General Hospital Problems," was conducted by John M. Smith, director, Hahnemann Hospital, Philadelphia. This round table drew the largest attendance of any session despite the fact that it was the last conference on the program. At the close of Mr. Smith's round table the president-elect, Dr. E. E. Shifferstine, superintendent, State Hospital of Coaldale, Coaldale, was installed in office. Doctor Shifferstine outlined the program which he hopes to carry through during the coming year, and stressed the point that an effort would be made to increase the membership before the next meeting, which will be held in Philadelphia. He then appointed the regular standing committees.

The nominating committee reported Thursday morning the following slate which was elected: president-elect, Elizabeth Shaw, superintendent, St. Margaret's Mercy Hospital, Pittsburgh; first vice-president, Geo. W. Sherer, Allentown General Hospital, Allentown; second vice-president, Sister Mary Bernard, Mercy Hospital, Wilkes Barre; trustees, Viola Woodward, Blair Memorial Hospital, Huntington, and Dr. Henry K. Mohler, Jefferson Hospital, Philadelphia.

This is the first time that a woman has been honored

by being elected president of this state hospital association.

There were forty-one exhibitors displaying hospital equipment and supplies in a room adjoining the meeting room.

The date of the next meeting was not set but it was the general impression that it will be held before Easter next year.

### Noted Speakers Add Attraction to Convention Program

Speakers of prominence will crowd with interest the meetings of the New Jersey Hospital Association which is to be held in Atlantic City, N. J., May 25 and 26. Some of the most noted of these will be: Dr. Joseph C. Doane, president, American Hospital Association, Philadelphia; Janet M. Geister, director of headquarters, American Nurses Association, New York; Rev. C. B. Moulinier, president, Catholic Hospital Association, Milwaukee; Dr. Malcolm T. MacEachern, director of hospital activities, American College of Surgeons, Chicago; Dr. Louis I. Harris, New York City Health Commissioner, New York; Dr. B. S. Pollak, medical director, Hudson County Tuberculosis Hospital, Secaucus, N. J.; Charles S. Pitcher, superintendent, Presbyterian Hospital, Philadelphia; Florence Dakin, New Jersey State Board of Examiners of Nurses; Lulu Graves, consultant in dietetics, New York; Rev. John G. Martin, superintendent, St. Barnabas Hospital, Newark, who will conduct the round table, and Dr. Allen Craig, formerly associate director of the American College of Surgeons, who will speak at the convention banquet.

The convention headquarters will be at Haddon Hall, where many exhibits of an interesting nature will be arranged.

### Large Attendance Expected at Nurses' Convention

Nurses who are planning on attending the biennial convention of the three national nursing organizations at Louisville, Ky., June 4 to 9, are urged to make hotel reservations at as early a date as possible. Indications are that the convention will be the greatest ever held by any body of nurses.

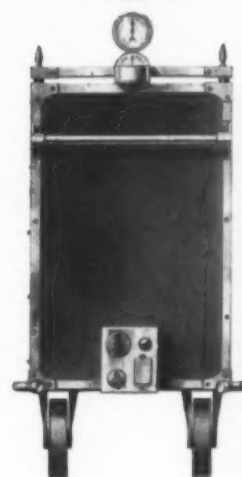
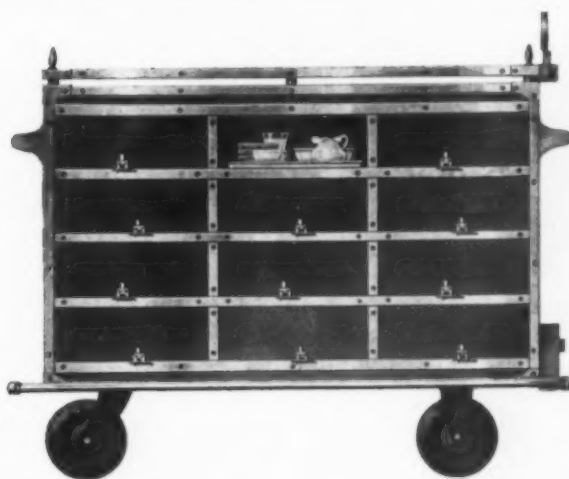
Headquarters of the American Nurses' Association will be at the Seelbach Hotel, while the National Organization for Public Health Nurses will maintain headquarters at the Brown Hotel, and the National League of Nursing Education will establish the center of their activities at the Kentucky Hotel.

Requests for reservations should be made through Miss J. O'Conner, 922 South Sixth Street, Louisville, Ky., and the following information should accompany each request: name, address, hotel preferred, single or double room, date and approximate hour of arrival.

Janet M. Geister, New York City, is chairman of the national committee of arrangements, and is being ably assisted by Flora E. Keen, Louisville, who is chairman of the local arrangements committee.

# Complete Centralized Kitchen Service Made Possible by The Thermo-Serve-Mobile

A food conveyor serving individual trays directly from main kitchen to patient. All compartments uniformly heated by circulating hot water—not by tank enclosed moderately heated water. Humidifying system assures moist food as well as hot.



## The Thermo-Serve-Mobile

1. Reduces cost. No expensively equipped floor diet kitchens. Less personnel necessary.
2. Reduces waste and breakage—there being no re-serving or re-handling.
3. Delivers food directly from kitchen range to patient in much shorter time.
4. Standardizes tray service. Trays made uniformly attractive, being set up in main kitchen under the direct supervision of the dietitian.
5. Serves food well prepared in main kitchen, to patient, hot, moist, and with its original flavor.
6. Makes the centralized kitchen a fact, not a theory.

*Our Engineering Department will help you solve your food delivery problems.*

*May our representative give you definite information?*

**Different Models to Meet Your Individual Requirements**

*Manufactured by*

# GEORGE A. LUECK COMPANY

290—3rd Street

Milwaukee

Wisconsin

## Among the Associations

# San Francisco Convention Is Arousing Wide Interest

The San Francisco convention of the American Hospital Association is attracting an increasing amount of interest among hospital people throughout the United States and Canada. The program of the convention is being arranged with the idea of developing constructive discussion on all hospital subjects of interest. The open forum sessions, to be held each morning of the convention, will be in charge of capable leaders, with Frank E. Chapman, Dr. Malcolm T. McEachern, and Asa S. Bacon acting as coordinators.

The afternoons will be devoted to general sessions of the association sections, and to the programs of the national bodies that are holding their conventions in connection with the convention of the association. Arrangements have been made by which S. M. Jackson of Tacoma, Wash., who is president of the board of trustees of the Tacoma General Hospital, will have charge of the trustee section, the program of which will include features that will be of decided interest to everyone engaged in hospital work.

On Friday evening, August 10, a meeting open to the general public will be held, and will be addressed by Dr. Ray Lyman Wilbur, president of Leland Stanford University, Palo Alto, Calif.

### Varied Entertainments Planned

The local arrangements committee in San Francisco is perfecting its plans for the entertainment of the guests. One evening will be given over to a dinner at the Mandarin Inn in Chinatown. The Chinese Chamber of Commerce is interested in the entertainment of the guests, and the streets and places of amusement in Chinatown will be kept open until a late hour for their benefit.

The ladies of the party will be driven to Leland Stanford University and other places of interest about San Francisco. Through the courtesy of N. Florence Cummings, Leland Stanford University Hospitals, and Bertha Lovell, Letterman General Hospital, San Francisco, women may be put up at the Western Women's Club and the Women's City Club of San Francisco.

It is to be remembered that the evenings in San Francisco in August are cool and will necessitate a light coat or wrap for comfort.

The special trains taking the delegates to the convention will leave Chicago, under the existing arrangements, on July 29 and will be in charge of Bert White, American Express Company, 70 East Randolph Street, Chicago. These trains will be run under separate schedule and will be under Mr. White's direction from Chicago to San Francisco. There are to be several stop-overs. At Denver, Colo., the local arrangements committee, consisting of George Collins, Charles Wordell, Robert Witham, and Doctor Jaffa, is making arrangements to entertain the hospital people on these trains with a dinner at Echo Lake, on the top of Mount Evans, which will be preceded by the usual sight-seeing trips about Denver.

At Colorado Springs, Colo., G. M. Hanner and Mr. Swanger are arranging drives to the Cave of the Winds and the Garden of the Gods before taking the train for a trip through the Royal Gorge, en route to Salt Lake City.

At Salt Lake City Heber Grant, superintendent, Latter-Day Saints Hospital, and other hospital people are planning an afternoon of salt air, with an organ recital at the Mormon Tabernacle, and sight-seeing trips about Salt Lake City, with a dinner at the Hotel Utah in the evening.

On leaving Salt Lake City, some of the delegates will go to Los Angeles, where they will spend the week and the remainder will go via Ogden to San Francisco, reaching there in time to attend the American Protestant Hospital Association convention.

Hotel reservations in San Francisco should be taken care of as soon as possible. Rates are reasonable and satisfactory accommodations can be secured without a great outlay of money.

The headquarters of the American Hospital Association will be at Hotel Whitcomb, and of the American Protestant Hospital Association, at the Clift Hotel. The American Express Company has engaged 100 rooms at the St. Francis Hotel for the accommodation of their party, and a sufficient number of reservations have been made at other hotels to care for all those who desire to attend.

It is to be remembered that August and September are the resort months of the year in San Francisco, and as a rule the hotels are pretty well occupied by guests who are spending this period of the year there because of the pleasant weather.

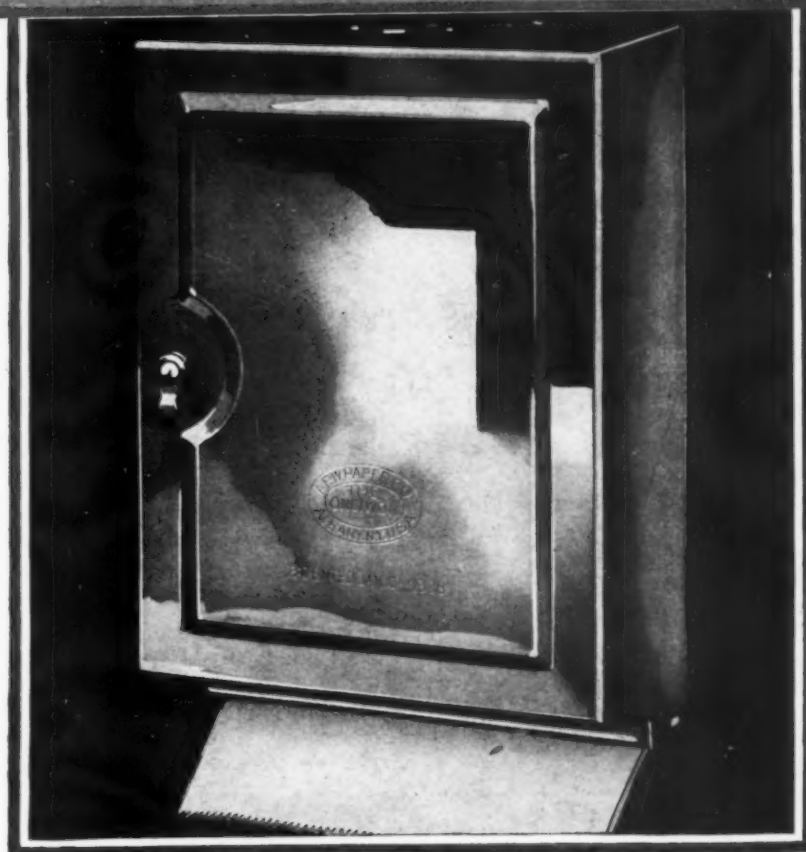
The local hospital superintendents of Portland, Ore., Longview, Wash., Tacoma, Wash., and Seattle, Wash., are arranging special entertainment for the delegates after they leave the convention.

All delegates engaging transportation through the American Express Company will leave on the special trains conducted by them and under the charge of Bert White, on July 29, regardless of what tour has been selected. The arrangements that have been effected will insure a delightful trip across the continent, as well as the return trip and the entertainment that will be provided by the Express Company.

### Nurses Home Nears Completion

Providence Hospital at Seattle, Wash., will soon occupy its new \$400,000 nurses' home which is being erected adjacent to the present hospital building. The construction and equipment of this building are being supervised by Sister John Gabriel, R.N., supervisor of the schools of nurses of the Sisters of Charity of Providence for the Northwest.

A. P. W. PAPER COMPANY, ALBANY, N. Y. U. S. A.



*Onliwon toilet paper cabinet of pressed steel finished in rust-proof nickel silver. Yale lock and contents indicator.*

## Double folded sheets save waste

**O**NLIWON toilet tissue is served in two interfolded sheets at once. It is convenient, economical and eliminates waste. Experience in hundreds of installations proves its saving. Onliwon cabinets are neat-look-

ing . . . fool-proof . . . and will last for an exceptionally long period of time.

Splendid service at low cost is the keynote of the Onliwon Service. A. P. W. Paper Company, Albany, New York, U. S. A.

# Onliwon

**TOILET PAPER AND PAPER TOWEL SERVICE**

## Among the Associations

### Health Association to Make Hospital Survey

The committee on administrative practice of the American Public Health Association has, during the past year, been asked to broaden the scope of its surveys and appraisals, having been requested by two cities to include studies of the hospitals and other organized facilities for the care of the sick.

An article in a recent issue of the *American Journal of Public Health* contains the following statement:

"The committee will not be concerned with studies of internal administration of hospitals, the personal diagnostic or therapeutic care of the patients by physicians in hospitals or clinics, the planning or construction of physical plants or the technical or educational standards involved in any of these institutions. It is intended that the association should carefully avoid entering fields in which such organizations as the American Medical Association, the American College of Surgeons and the American Hospital Association have primary interests and important existing activities.

"Surveys within the proper scope of the committee will be regarded for the present as including such matters as the need for hospital beds, clinics or other organized curative facilities of a community; the social and economic groups for which such facilities are needed; the geographical distribution of the interrelations of these facilities to one another and to other interests and agencies of the locality. Surveys of this type would ordinarily be conducted in connection with a study and appraisal of the official health department, the health work of the board of education and voluntary agencies requested by the health officer."

### News of Dietitians

Kathryn Heitshu, Kissel Hill, Pa., who recently completed her student dietitian course at the University of Michigan Hospital, Ann Arbor, Mich., has accepted a position at Mount Sinai Hospital, Philadelphia, under J. Marie Melgaard, chief dietitian.

Marian Lucas, Victoria, B. C., is at St. Mary's Hospital, Rochester, Minn., with Florence Smith. Miss Lucas recently finished her student dietitian training at the University of Michigan Hospital.

Esther Sneden of New Haven, Vt., who completed her student dietitian training at the University of Michigan Hospital, January 1, is dietitian at the Protestant Hospital, Norfolk, Va.

Zella Jane Ball, who recently completed student dietitian training at the University of Michigan Hospital, is dietitian at the Parkland Hospital, Dallas, Tex.

Evelyn Hailey, therapeutic dietitian at the University of Michigan Hospital, has resigned her position and is at her home in Dallas, Tex., for an indefinite period. Ruth McCully of Hood College, Md., is taking Miss Hailey's place.

Selma Walker recently of Harper Hospital, Detroit, is dietitian of the new metabolism department at Receiving Hospital, Detroit. Dr. Richard McKean is in charge.

### Coming Meetings

**American Association of Hospital Social Workers.**  
President, Mrs. Charles W. Webb, Lakeside Hospital, Cleveland, Ohio.

Executive-Secretary, Helen Beckley, 18 East Division Street, Chicago.

Next meeting, Memphis, Tenn., May 1-9.

**American College of Surgeons.**

President, Dr. George David Stewart, New York.

Director General, Dr. Franklin H. Martin, 40 East Erie Street, Chicago.

Next meeting, Boston, Oct. 8-12.

**American Hospital Association.**

President, Dr. Joseph C. Doane, Medical Director, Philadelphia General Hospital, Philadelphia.

Executive-Secretary, Dr. Bert W. Caldwell, 18 East Division Street, Chicago.

Next meeting, San Francisco, Aug. 6-10.

**American Medical Association.**

President, Dr. Jabez N. Jackson, Argyle Building, Kansas City, Mo.

Secretary, Dr. Olin West, 535 North Dearborn Street, Chicago.

Next meeting, Minneapolis, Minn., June 11-15.

**American Nurses Association.**

President, S. Lillian Clayton, Philadelphia General Hospital, Philadelphia.

Headquarters Director, Janet M. Geister, 370 Seventh Avenue, New York.

Next meeting, Louisville, Ky., June 4-9.

**American Protestant Hospital Association.**

President, Rev. H. L. Fritschel, Milwaukee Hospital, Milwaukee, Wis.

Secretary-treasurer, Dr. Frank C. English, Christ Hospital, Cincinnati.

Next meeting, San Francisco, Cal., Aug. 4-6.

**American Psychiatric Association.**

President, Dr. Adolph Meyer, Johns Hopkins University, Baltimore, Md.

Secretary, Dr. Earl D. Bond, 4401 Market Street, Philadelphia.

Next meeting, Minneapolis, Minn., June 5-8.

**Canadian Nurses' Association.**

President, M. F. Gray, University of British Columbia, Vancouver.

Executive-Secretary, Jean S. Wilson, 511 Boyd Building, Winnipeg.

Next meeting, Winnipeg, July 3-4.

**Catholic Hospital Association of the U. S. and Canada.**

President, Rev. C. B. Moulinier, 124 Thirteenth Street, Milwaukee, Wis.

Secretary, Sister M. Bernadette, 124 Thirteenth Street, Milwaukee, Wis.

Next meeting, Cincinnati, June 18-22.

**Hospital Association of New York State.**

President, Col. Louis C. Trimble, New York.

Secretary, Dr. Marvin Z. Westervelt, Staten Island Hospital, Staten Island.

Next meeting, New York, May 24-25.

**Minnesota Hospital Association.**

President, Dr. Ernest S. Mariette, Glen Lake Sanatorium, Oak Terrace.

Secretary, Dr. Ernest C. Smelzer, Charles T. Miller Hospital, St. Paul.

Next meeting, Minneapolis, May 28-29.

**National League of Nursing Education.**

President, Carrie M. Hall, Peter Bent Brigham Hospital, Boston.

Executive-Secretary, Blanche Pfefferkorn, 370 Seventh Avenue, New York.

Next meeting, Louisville, Ky., June 4-9.

**National Organization for Public Health Nursing.**

President, Mrs. Anne L. Hansen, 181 Franklin Street, Buffalo, N. Y.

Director, Jane C. Allen, 370 Seventh Avenue, New York.

Next meeting, Louisville, Ky., June 4-8.

**National Tuberculosis Association.**

President, Dr. H. Longstreet Taylor, Children's Preventorium, St. Paul, Minn.

Managing Director, Linsley R. Williams, 370 Seventh Avenue, New York.

Next meeting, Portland, Ore., June 18-20.

**New England Hospital Association.**

President, Dr. Thos. S. Brown, Mary Fletcher Hospital, Burlington, Vt.

Secretary, Dr. Leslie H. Wright, Peter Bent Brigham Hospital, Boston, Mass.

Next meeting, Burlington, Vt., May 24-25.

**New Jersey Hospital Association.**

President, Dr. Paul Keller, Beth Israel Hospital, Newark.

Executive-Secretary, W. Crane Lyon, 201 Lyons Avenue, Newark.

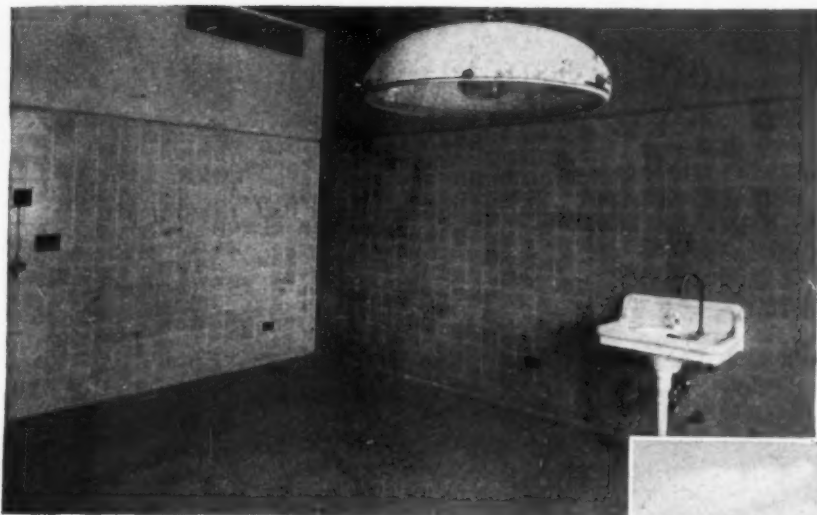
Next meeting, Atlantic City, May 25-26.

**North Carolina Hospital Association.**

President, Dr. C. S. Lawrence, Winston-Salem.

Secretary-Treasurer, Dr. L. V. Grady, Wilson.

Next meeting, New Bern, May 16-18.



An Operating Room—William Booth Memorial Hospital, Covington, Ky.  
Mosaic Tiles on Floor and Walls

**T**HE floor and wall requirements of a modern hospital demand spotless cleanliness, long wear, low cleaning cost, economy of upkeep and neat, attractive appearance.

Mosaic Tiles provide all these characteristics and at the same time permit a wide choice as to colors, shapes and designs. Hence they are equally adaptable for operating rooms, private rooms, wards, corridors and offices.

#### *Absolutely Sanitary*

Being inorganic and sterile, Mosaic Tiles are highly sanitary. Septic matter, blood, chemicals and stains remain on the surface and are easily removed. Walls and floors of Mosaic Tiles can be kept spotlessly clean and germ-proof at small expense and with little effort.

#### *Long Durability*

Mosaic Tiles are durable. They will outlast the building itself. They do not fade or darken and never require re-surfacing or re-decorating. They are also highly fire-proof and acid-proof.

#### *Cut Cleaning Costs*

Naturally, cleaning expense is an important item in the hospital. Not only are labor charges heavy but the necessity for strong, antiseptic cleansers requires a surface that is resistant to deterioration by strong chemicals.

Mosaic Tiles cannot be injured by any type of cleaning compound. Nor can biting acids, such as are used in the chemical laboratory, etch or stain their surface.

Mosaic Floor Tiles are not scratched or indented by constant traffic. They present a surface that is always true and even — safe and comfortable to walk on.

#### *Impart Restfulness and Beauty*

The restful colors of Mosaic Tiled walls, floors and ceilings provide an atmosphere of cheer that is conducive to



William Booth Memorial Hospital, Covington, Ky.

convalescence. They provide also an environment that engenders enthusiasm and therefore greater efficiency on the part of the Nursing Staff.

In Operating Rooms, Mosaic Tiles combine the property of diffusing light to the best advantage together with the use of the shades on walls and ceilings that best meet the requirements of the Hospital's Surgical Staff.

#### *Mosaic Tiles in Every Room*

Mosaic Tiles are recommended for Entrance Halls, Reception Rooms, Wards, Private Rooms, Operating Rooms, Dressing Rooms, Laboratories, Lavatories, Nurses' Rest Rooms and, of course, the Kitchens. Their cleanliness and durability also make them the most economical finishing material for Engine Rooms and Heating Plants.

#### *Consult Your Architect or Tile Contractor*

Your Architect and Tile Contractor can show you actual samples of Mosaic Tiles and can suggest color schemes which will add to the attractiveness of your hospital.

Their estimates of the cost of installation will convince you that in selecting Mosaic Tiles you will not only achieve the utmost in decorative effects and sanitation but that you will also find Mosaic Tiles the most economical finishing material you can employ.

**MOSAIC**

"Mosaic" is the Trade Name of Tiles manufactured exclusively by the Mosaic Tile Company of Zanesville, Ohio, U. S. A. The word "Mosaic" should always be used in writing Tile specifications.

**MOSAIC  
TILES**

THE  
**MOSAIC TILE COMPANY**  
ZANESVILLE, OHIO  
Dept. MH-5  
NEW YORK • CHICAGO • ST. LOUIS  
LOS ANGELES • SAN FRANCISCO



## Among the Associations

# Albert G. Hahn Honored by Indiana Association

**T**HE largest number of superintendents that has ever attended a meeting of the Indiana Hospital Association gathered together at the Hotel Lincoln, Indianapolis, April 10 and 11, for a program that proved to be of exceptional practical interest.

Despite the fact that the president of the association, Dr. M. F. Steele, superintendent, Hope Methodist Hospital, Fort Wayne, the president-elect, Robert E. Neff, administrator of Indiana University Hospitals, Indianapolis, and the vice-president, Dr. William M. Reser, Lafayette Home Hospital, Lafayette, were unable to be present, the meeting was ably conducted by Dr. William A. Doeppers, superintendent, Indianapolis City Hospital, Indianapolis.

The Tuesday session was opened with an invocation by the Rev. Floyd Van Keuren, rector, Christ Church,

where the hospital executives were the guests of the Gyro Club. Matthew O. Foley delivered an address on hospital publicity.

The afternoon's program was divided into two round tables, the first one conducted by Dr. M. T. MacEachern and the second by Mrs. Ethel P. Clarke, director of the training school for nurses, Indiana University. Dr. Charles P. Emerson, dean of the medical school, Indiana University, ably discussed many of the points presented in Dr. MacEachern's preliminary presentation and nearly all of the members entered into the discussions at both round tables. Many excellent points on improving hospital service were discussed at Mrs. Clarke's round table, and the program lasted until well toward five o'clock.

The annual dinner was held in the evening as a joint meeting with the Indianapolis Medical Society. Dr. Doeppers presided as toastmaster and Dean Irving S. Cutter, Northwestern University School of Medicine, Chicago, presented an excellent address on the business of medicine in relation to hospitalization. Following the dinner dancing was enjoyed.

### Papers Are Freely Discussed

Two excellent papers were presented on Wednesday morning, the first being a history of the development in county hospitals by Gladys Brandt, and the second was entitled, "Responsibility of General Hospitals Toward Out-Patient Service," by John E. Ranson, superintendent, Toledo Hospital, Toledo, Ohio. Miss Brandt's paper was discussed by Rachel Hill, inspector, Board of State Charities, Indianapolis, and by Mrs. G. M. Lake, Lafayette Home Hospital, Lafayette, Eva Milburn, superintendent, Putnam County Hospital, Greencastle, Mrs. Alma Erickson, superintendent, Sherman Memorial Hospital, Sullivan; Missouria F. Martin, superintendent, Muncie Home Hospital, Muncie, and many others.

Dr. Frederick E. Jackson, vice-president, Indianapolis City Board of Health, Indianapolis, discussed Mr. Ranson's paper. An enjoyable luncheon followed the morning session, at which time William Herschell, the Poet of the Byways, recited many of his original poems and Eugene C. Foster, director, Indianapolis Foundation, spoke on social work and hospital publicity.

Dr. William H. Walsh, former secretary of the American Hospital Association, conducted the afternoon round table on hospital problems and this was followed by the business meeting.

Missouria Martin who has served as secretary of the association, tendered her resignation due to a great pressure of work that she is under in connection with the building and equipping of the Muncie Home Hospital. A vote of thanks was tendered to Miss Martin for her untiring efforts, and she was given credit for much of the success attending the association. Appreciation was also expressed to many of the others who were the prime movers in perfecting the state organization.



*Missouria Martin,  
retiring secretary  
of the association.*

Indianapolis. This was followed by a reading of Dr. Steele's presidential address by Dr. Doeppers. The first paper presented was "Hospital Costs and Charges," by John A. McNamara, executive editor, *THE MODERN HOSPITAL*, Chicago. Mr. McNamara's paper was to have been discussed by Mr. Neff, but due to his absence the discussion was read by Dr. Bert W. Caldwell, executive secretary, American Hospital Association, Chicago, and was participated in by Dr. M. T. MacEachern, associate director, American College of Surgeons, Chicago, Matthew O. Foley, managing editor, *Hospital Management*, Chicago, Gladys Brandt, superintendent, Cass County Hospital, Logansport, Dr. C. N. Combs, superintendent, Union Hospital, Terre Haute, and several others.

At noon a luncheon was held at the Spink Arms Hotel,



The picture shows C. A. 3645 Combination Bedside Table with Formica top made by F. O. Schoedinger, Columbus, Ohio. It is one of many items of medical furniture on which this company uses Formica tops.

# Chemically Inert Furniture Tops *for* Hospitals

**F**ORMICA tops for bedside tables, dressers and other hospital furniture are un-touched by alcohol or any solvent and will stand very high percentages of even the strong oxidizing acids like Sulphuric. They also stand strong alkalies.

They are not brittle and will not break like glass. They are not injured by lighted cigars and cigarettes or even lighted matches.

No surface has ever been available before, which would resist injury from medicines, chemicals, an-

tiseptics and all sorts of liquids as these will. Leading makers of new furniture can supply them.

We can also supply the tops—and the method of attachment—for re-finishing old furniture in either metal or wood.

We make Formica in two marble finishes, several fine wood finishes, Ivory, Green and other solid colors.

Write for the facts.

THE FORMICA INSULATION COMPANY

4635 Spring Grove Avenue  
CINCINNATI, OHIO

**FORMICA**  
*for* **FURNITURE & FIXTURES**

## Among the Associations

Albert G. Hahn, business manager, Deaconess Hospital, Evansville, was elected president for the ensuing year to fill the vacancy caused by the loss of Mr. Neff who is leaving the state. Miss Martin was chosen president-elect, Dr. Doeppers and Adah B. Strayer, Wabash County Hospital, Wabash, were elected vice-presidents, Gladys Brandt was elected secretary and Frances MacMillan, superintendent of nurses, Methodist Hospital, Indianapolis,

was elected treasurer. No changes in the constitution were proposed.

Dr. Steele and Sister Sabina, St. John's Hospital, Anderson, were elected trustees.

A resolution was passed and adopted endorsing National Hospital Day, and the association will ask the governor of Indiana as well as the mayor of Indianapolis to issue an appropriate proclamation.

## Ohio Association to Ask for Increase in Compensation Rate

A SERIES of round tables comprised the fourteenth annual meeting of the Ohio Hospital Association held in Toledo, April 17 and 18. There was a larger attendance of superintendents than in previous years when the meeting has been held in Columbus. The superintendents of Toledo proved to be admirable hosts and the entertainment was much superior to that usually furnished at state meetings.

At the luncheon on the first day Dr. E. R. Crew, superintendent, Miami Valley Hospital, Dayton, presided and presented his presidential address. There were reports of officers and committees to be held but these were deferred until the last session.

The first round table of the meeting was conducted by Mary E. Yager, superintendent, Maternity and Children's Hospital, Toledo, and embraced administration procedures. The question of collections was debated by many of the superintendents present and the question of the legal status of the patient was also discussed.

The second round table was in charge of Dr. A. C. Bachmeyer, superintendent, Cincinnati General Hospital, Cincinnati, who led the discussions in professional problems. Whether the roentgenologist and the pathologist shall be members of the staff or department heads or both, whether all physicians shall be admitted to practice, and other questions were brought up.

At the dinner session held at 6:30 p. m., at which Dr. Crew presided, Caroline McKee, chief examiner, Nurse Registration, State of Ohio, was the first speaker. She took for her topic, "Some Hospital Problems Viewed from the Standpoint of Nurse Training." The work of the committee on the grading of nursing schools was reviewed in her talk.

Dr. H. H. Dorr, chief medical examiner, division of workmen's compensation, Ohio Department of Industrial Relations, spoke on "Industrial Relations to Ohio Hospitals."

Dr. Bert W. Caldwell, executive secretary, American Hospital Association, Chicago, was the last speaker. He reviewed the work that is being done and the work contemplated by the A. H. A. and told of its relation and interest to the Ohio association.

Music for the dinner was supplied through the courtesy of the Toledo City Hospital.

Wednesday morning's program started with a breakfast at the Commodore Perry Hotel and ended with a luncheon at the Maternity and Children's Hospital. Following the breakfast, a round table lasting all morning was conducted by Frank E. Chapman, director, Mount

Sinai Hospital, Cleveland. The questions discussed concerned radio in hospitals, telephones for patients, soundproofing in the hospital and other pertinent topics. The last half of the round table, which was to have been conducted by B. W. Stewart, superintendent, Youngstown Hospital, Youngstown, was conducted by Mr. Chapman, and concerned housekeeping problems.

Rev. A. G. Lohman, superintendent, Deaconess Hospital, Cincinnati, presented the resolutions, the chief one concerning an increase in compensation rates from the state, and a readjustment of the liability rates paid by the hospitals. It was decided that a committee from the association should take this matter up with the state compensation board and with the state rating bureau. It was also resolved that the Ohio Public Health Association be asked to appoint a committee for the promotion of hospital work in the state. Dr. Robert G. Paterson, who has acted as executive secretary of the association for several years, tendered his resignation which was accepted with regret by the association.

The election of officers resulted in the following: president, C. A. Brimmer, formerly superintendent, Mansfield Hospital, Mansfield; president-elect, Alice P. Thatcher, superintendent, Christ Hospital, Cincinnati; Rev. Phillip Vollmer, Jr., superintendent, Fairview Park Hospital, Cleveland, first vice-president; Sister Mary, Good Samaritan Hospital, Cincinnati, second vice-president, and Rev. Maurice F. Griffin, St. Elizabeth's Hospital, Youngstown, treasurer.

## Dr. Mayo to Address Minnesota Association

Delegates to the annual meeting of the Minnesota Hospital Association, which will be held in Minneapolis, May 28 and 29, will be benefited by a well planned program which will cover a broad scope of hospital problems. The meeting will be addressed by notables in the hospital field from all over the country.

Some of the prominent speakers who will attend the meeting are: H. J. Harwick, superintendent, Mayo Clinic, Rochester; Dr. W. C. Alvarez, Rochester; Joseph Norby, superintendent, Fairview Hospital, Minneapolis; Dr. J. A. Myers, Minneapolis; J. J. Drummond, manager, Worrell Hospital, Rochester; Dr. Bert W. Caldwell, executive secretary, American Hospital Association, Chicago; Dr. Charles Mayo, Mayo Foundation, and Margaret Rogers, superintendent, St. Lukes Hospital, St. Paul.

# FRESH FRUIT DRINKS

*Eliminate the high cost, the waste and the trouble  
of squeezing whole fruit by using*

## J-L-E BEVERAGE CRYSTALS

(Formerly sold as Dry Beverages)

### Announcement

*J-L-E BEVERAGE CRYSTALS* is the new name for a product that has been in use by most hospitals and institutions for the past five years.

The popularity of this, as well as that of a number of other well known products, has made it possible to provide myself with a new factory and laboratories, equipped with the most modern, scientific machinery, capable of producing from the same formulae and materials even better products than heretofore. These products were originated by me and will hereafter be sold only by the **Schweizer Fruit Products.**

The patronage of the Hospitals and Institutions that I have been privileged to serve has made it possible for me to expand my business in this manner, and I wish to express my thanks and appreciation for the same.

May I continue to serve you?

Fred G. Schweizer.

Now used in the largest hospitals and institutions.

Besides being a delicious thirst-quencher, *J-L-E Beverage Crystals* satisfy the palate and furnish an ideal way of relieving the monotony of the liquid diet.

Wholesome, healthful and refreshing.

An excellent palliative when nurses pass cathartics and unpleasant medicines.

Doctors request *J-L-E Beverage Crystals* for operating-room service.

As easy to prepare and serve as milk. Merely dissolved in cold water.

Effect a large saving in fruit at a time when it is most expensive.

Dietetic authorities recommend their liberal use.

*May we send you free samples of J-L-E Beverage Crystals?*

#### Seven Zestful Flavors

Orange	Grape
Lemon	Cherry
Lime	Raspberry
Fruit Punch	

## SCHWEIZER FRUIT PRODUCTS

740 W. Adams Street, Chicago, Ill.

*Tear off here and mail*

Schweizer Fruit Products, Dept. B,  
740 West Adams Street,  
Chicago, Illinois.  
Gentlemen: Please send to  
Institution .....  
Business .....  
Requested by .....  
Samples of J-L-E  
Beverage  
Crystals.  
City .....

## Among the Associations

# Dietetic Subjects Discussed at Michigan Meeting

**A** MOST successful joint meeting of the Michigan Hospital Association and the South Eastern Michigan Dietetic Association was held at the Book Cadillac Hotel, Detroit, April 19 and 20. Dr. Harley A. Haynes, director, University Hospital, Ann Arbor, presided at all meetings and the attendance this year was much larger than at former sessions.

Dr. Haynes introduced S. Margaret Gillam, director of housekeeping and dietetics, University Hospital, Ann Arbor, who acted as chairman for the opening session, when all of the papers read concerned diets. Lenna Cooper, food director, University Hospital, presented the first paper, entitled, "The Responsibility of the Hospital in the Training of Student Dietitians," which was followed by a general discussion on this and related subjects. Pauline Bailey, dietitian, Harper Hospital, Detroit, then read a paper on "Teaching Student Nurses," and there was a dietary round table at which time many of those present presented views on obesity, metabolism, diabetes, pernicious anemia and other subjects that have held the attention of dietitians. Mrs. Dorothy Stewart Waller, dietitian, Simpson Memorial Institute, Ann Arbor, conducted this round table.

The last speaker of the first session was Dr. Cyrus Sturgis, director, Simpson Memorial Institute, who gave an excellent resumé of the work being done in the cure of pernicious anemia at the institute. He told of the discovery of liver as a cure for this disease and of the progress that was being made in the study of the disease.

### Anesthesia Problems Discussed

Dorothy Ketcham, director of social service, University Hospital, presented a survey of Michigan hospital facilities at the afternoon session. Dr. W. L. Quennell, superintendent, Highland Park Hospital, Highland Park, opened what proved to be an excellent debate on the subject of who shall administer anesthesia in the hospital. Dr. Myra Babcock, anesthetist, Grace Hospital, Detroit, led the discussion, which was entered into by Dr. Shannon, Harper Hospital, Dr. M. T. MacEachern, American College of Surgeons, Chicago, and others.

An illuminating paper on hospital accounting was presented by Albert E. Sawyer, chief accountant, University Hospital. Mr. Sawyer showed many charts and forms that have been perfected, and by which much time and money have been saved at the University Hospital. The last paper of the day was given by Dr. W. L. Babcock, director, Grace Hospital, Detroit, on economies in the hospital. He contended that the superintendent can save a lot of money by making homemade devices in his spare time.

At the dinner meeting Dr. MacEachern spoke on the proper planning of the dietary department in the hospital. A public meeting was held, following the dinner, at which Dr. A. M. Barrett, director, State Psychopathic Hospital, Ann Arbor, spoke on psychiatric problems.

Laura G. Meader, director of nursing, Grace Hospital, Detroit, opened the session on Wednesday morning with a paper on group nursing. This was followed by a paper on out-patient service which was read by Beatrice Kaiser, clinic executive, Harper Hospital, Detroit. The discussion that followed was participated in by nearly everyone present and many excellent points were brought out.

Bertha Beecher, assistant superintendent, Christ Hospital, Cincinnati, then presented a paper on administrative problems, and Shirley Titus, director of nursing, University Hospital, read a paper on "Factors to Be Considered in Selecting Student Nurses." Both papers were liberally discussed and the entire morning was spent with this program.

### Dr. MacEachern Speaks on Standardization

The last session was opened by Dr. MacEachern, who discussed hospital standardization in Michigan, and Mrs. Kate Jackson Hard, superintendent, Saginaw General Hospital, Saginaw, read a paper on the dietitian in the small hospital. S. G. Davidson, superintendent, Butterworth Hospital, Grand Rapids, discussed the paper.

A resolution was introduced and passed by which the Michigan Association ceases to be a section of the American Hospital Association and becomes instead an independent organization. A resolution on the death of Rev. M. P. Bourke, who for many years was an active worker in the hospital association, was introduced and passed.

The long-awaited handbook that has been prepared by Dorothy Ketcham with the assistance of the committee on publication, which was headed by the late Father Bourke, has been issued and copies are being sent to members and nonmembers upon application to Robert G. Greve, University Hospital, Ann Arbor. The book is one of the most valuable additions to hospital literature that has appeared in some years, and contains many of the laws affecting hospitals in Michigan, as well as a complete roster of hospitals in the state and other pertinent information.

### Dr. Stewart Elected President

The following officers were elected: president, Dr. Charles E. Stewart, Battle Creek Sanitarium, Battle Creek; first vice-president, Dr. Donald M. Morrill, superintendent, Blodgett Memorial Hospital, Grand Rapids; second vice-president, Rev. C. C. Hoag, superintendent, Evangelical Deaconess Hospital, Detroit; third vice-president, Mrs. W. C. LeFevre, trustee, Highland Park General Hospital, Highland Park; secretary, Robert G. Greve, assistant superintendent, University Hospital, Ann Arbor; treasurer, Amy Beers, superintendent, Hackley Hospital, Muskegon; executive secretary, Mrs. Frank E. Kirk, Detroit. Dr. Haynes was added to the board of trustees in place of Dr. Stewart Hamilton, superintendent, Harper Hospital, Detroit, whose term of office expires at this time.

# On all counts . . .

## REAL TILE proves itself superior under scientific test

**H**OSPITAL FLOORING must do more than simply satisfy the ordinary requirements of sanitation and appearance—it must be permanent. The first cost must be the only cost.

Thorough scientific tests of floor materials used in hospitals prove that on all counts ceramic tile, real tile—provides a permanent flooring—a flooring that *makes* first cost the only cost.

In the abrasion test for instance, made by grinding a standard abrasive into the sample with 20,000 revolutions of a leather covered wheel, ceramic tile showed decreased weight of only 4.5% while other familiar floorings lost from 16 to 72%.

Similarly in the heat test, the absorption test, the light test, in resistance to chemicals, ceramic tile was definitely established as possessing the qualities needed in hospital use to a greater degree than any other material.

First cost is lost sight of when the conditions hospital floors must meet are thoroughly studied. Consider any material you plan to use on this basis and you will decide on ceramic tile.



*Tiled corridor. Flower Hospital, New York City.  
Delano and Aldrich, architects. Black and white  
tile floor in 12" blocks*

## ASSOCIATED TILE MANUFACTURERS

220 Graybar Building—420 Lexington Avenue, New York, N. Y.

ALHAMBRA TILE CO., Newport, Ky.

AMERICAN ENCAUSTIC TILING CO., Ltd.  
Zanesville, Ohio

CAMBRIDGE TILE MFG. CO., Covington, Ky.

FEDERAL TILE CO., Columbus, Ohio

GRUEBY FAIENCE & TILE CO., Perth Amboy, N. J.

MATAWAN TILE CO., Matawan, N. J.

MOSAIC TILE CO., Zanesville, Ohio

NATIONAL TILE CO., Anderson, Ind.

OLEAN TILE CO., Olean, N. Y.

THE C. PARDEE WORKS, Perth Amboy, N. J.

ROSSMAN CORPORATION, Beaver Falls, Pa.

STANDARD TILE CO., Zanesville, Ohio

THE SPARTA CERAMIC CO., East Sparta, Ohio

UNITED STATES ENCAUSTIC TILE WORKS  
Indianapolis, Ind.

UNITED STATES QUARRY TILE CO.  
Parkersburg, W. Va.

WHEELING TILE CO., Wheeling, W. Va.

K E R A M I C T I L E S

For complete index of advertisements refer to the Classified Directory

## Among the Associations

# Record Attendance at Illinois and Wisconsin Joint Meeting

**A**T A joint meeting of the Hospital Association of the State of Illinois and the Wisconsin Hospital Association, held at the Hotel Sherman, Chicago, April 24 and 25, an invitation for closer cooperation and a more intimate relationship was extended to the Illinois association by representatives of the American Hospital Association.

"There will come a time," said Paul W. Wipperman, president of the Hospital Association of Illinois, in addressing the delegates at a luncheon, "when every state association will be a branch of the national organization. When this time arrives, cooperation of the highest type will result; a better understanding of hospital problems throughout the country will be effected, and a uniform means of solving these problems can be employed."

At the opening meeting of the associations on Tuesday morning, the main topics for discussion dealt with business methods in hospitals, and on this subject papers were presented by the following: Clarence Baum, whose subject was "What Are the Essential Requirements for an Efficient Business Department in a Hospital?" John A. McNamara, executive editor of *THE MODERN HOSPITAL*, who presented the question "Is Hospital Service Too Costly and Are Charges Too High? What Are Hospitals Doing for the Patient of Moderate Means?" William L. Coffey, manager, County Institutions, Milwaukee, who discussed the question of the advantages of a budget system in a hospital, and how the budget system can best be prepared; John E. Ransom, superintendent, Toledo Hospital, Toledo, Ohio, who presented "What Are the Best Methods of Preventing and Collecting Delinquent Accounts," Ada Belle McCleery, superintendent, Evanston Hospital, Evanston, Ill., who discussed ways and means for meeting annual deficits in hospitals. The meeting was closed by a general discussion.

### Dr. Caldwell Presides at Luncheon

Dr. Bert W. Caldwell presided at the luncheon, and Dr. W. A. Henke, president, Wisconsin Hospital Association, spoke on the necessity for care and efficiency in the purchase of small articles of equipment. This was followed by a short talk by Dr. Wipperman, in which he emphasized the importance of bringing to the attention of the public the dangers of unethical hospitals.

The afternoon session was presided over by Dr. Henke, and the topic for discussion was of seven ways of saving money in the hospital. These were the elimination of waste in the drug room; the elimination of fire risks, thus reducing insurance rates; economies in the use of fuel; laundry economies; purchasing and storeroom methods; through proper maintenance of building and equipment.

The toastmaster at the dinner of the association was James A. Patten, Chicago, member of the board of trustees of Evanston Hospital. The speakers were Dr. Joseph C. Doane, Philadelphia, president, American Hospital Association, and Rev. C. B. Moulinier, S.J., Milwaukee.

Dr. Doane spoke on "Looking Forward in the Hospital Field," and Father Moulinier painted a beautiful picture of the hospital of the future, which, according to the tendencies of the present day, will present more the appearance of a comfortable homelike structure, rather than the crude, cold appearance of hospitals of the past.

Although Mr. Patten declared he had come unprepared to make a speech, he interested every one present with a short talk on the importance of having influential men as members of hospital boards; sincere progressive men on the staffs; and capable men as superintendents.

The Wednesday morning meeting presided over by Dr. Doane, dealt with professional problems in hospitals. In this session Dr. M. T. MacEachern, associate director, American College of Surgeons, Chicago, brought out some interesting points on the organization of medical staffs in the hospitals, and whether or not staff members should be appointed for life, a number of years, or annually. Dr. R. C. Buerki, superintendent, Wisconsin General Hospital, Madison; Dr. O. E. Nadeau, Augustana Hospital, Chicago; E. E. Sanders, superintendent, Ravenswood Hospital, Chicago; Dr. Frank J. Novak, Lake View Hospital, Chicago, and Ruth Emerson, social service director, Billings Memorial Hospital, Chicago, all took part in the presentation of various professional problems.

Before the luncheon separate business meetings of the two associations were held. At this time officers for the coming year were elected by each association. Those elected by the Illinois association were: Asa S. Bacon, superintendent, Presbyterian Hospital, Chicago, president; Ada Belle McCleery, superintendent, Evanston Hospital, Evanston, vice-president; E. I. Erickson, superintendent, Augustana Hospital, secretary and treasurer; and Dr. M. T. MacEachern, trustee. The Wisconsin association elected Dr. J. W. Coon, superintendent, River Pines Cottage Sanatorium, Stevens Point, president; Grace T. Crafts, superintendent, Madison General Hospital, Madison, first vice-president; Dr. C. R. Wollan, La Crosse, second vice-president; H. K. Thurston, Jackson Clinic, Madison, secretary and treasurer.

The closing session of the meeting took the form of a clinic in hospital administration. This was conducted by Dr. MacEachern, assisted by Father Moulinier.

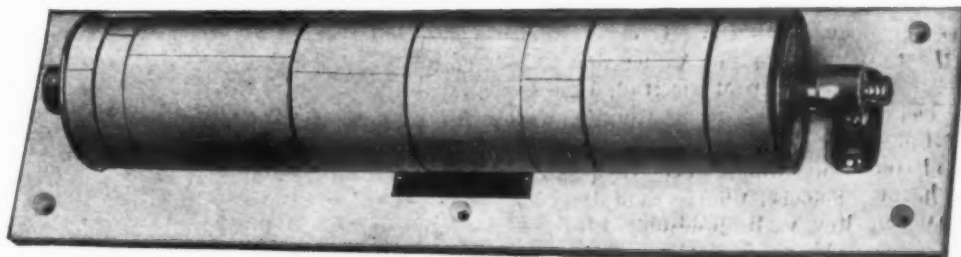
There was a total registration of nearly 300 delegates and visitors. Visitors were registered from all parts of the country including Colorado, Kentucky, Minnesota, Ohio, Massachusetts and Texas. The luncheons and dinner were well attended, and it is believed that the fund of knowledge and information acquired by the delegates made the trip well worth their while. Six trustees of the American Hospital Association were among the visitors.

The associations passed a resolution to meet jointly next year, and the Illinois association passed a resolution to accept the invitation of the American Hospital Association for closer relations between the two bodies.



[ To Open Rack  
merely pull out lug  
as illustrated. ]

### IMPROVED HOSPITAL DISPENSING RACK



THE chief advantage of the "Hygienic Made" Rack lies in this feature: When any section of the Adhesive Plaster Roll is exhausted it can be replaced conveniently by one of the stock cut refill sizes without waiting until the entire spool is used up.

WRITE FOR COPY OF OUR DESCRIPTIVE FOLDER ON  
"IMPROVED SECTIONAL ADHESIVE ROLL AND RACK"

**Hygienic Fibre Company, Inc.**  
227 FULTON ST. NEW YORK CITY

## Among the Associations

### Commercial Standard for Clinical Thermometers Adopted

A general conference of manufacturers, distributors, and organized users of clinical thermometers held March 30, 1928, at the Department of Commerce, Washington, D. C., approved a proposed commercial standard which established the minimum requirements in the manufacture of thermometers of this character.

The conference agreed that the manufacture of new thermometers under the standard will begin October 1, 1928, and allowed one year, namely, until March 30, 1929, for clearance of existing manufacturers' stocks. Annual revision of the standard will be conducted by a standing committee, representative of the industry.

The conference favored the promotion of foreign commerce in clinical thermometers, based on the adopted standard. The standard will be translated into Spanish and Portuguese. Acceptance by manufacturers, distributors, and organized users, representing 65 per cent of the total volume of the industry, is necessary before the program can be promulgated as a commercial standard of the Department of Commerce.

The industry is determined to market only accurate and reliable clinical thermometers. Each thermometer will be certified by the manufacturer to comply in all respects to the requirements and tests of the standard adopted.

### Interesting Program Planned for Catholic Convention

All of the important features of the Catholic Hospital Association convention program have been announced by Dr. John R. Hughes, general chairman of the convention. The meeting of the association, which is to be combined with the second annual hospital clinical congress, will be held in Cincinnati during the week of June 18.

The opening meeting, over which Rev. Albert C. Fox, vice-president of the Catholic Hospital Association, will preside, will be held in the Cincinnati Music Hall, June 18. An address of welcome will be delivered by Murray Seasingood, mayor of Cincinnati. This will be followed by the key address of the convention, "The Hospital, a Central Source of Beauty, Science, Charity and Health," which will be delivered by Rev. C. B. Moulinier, president of the association. Other addresses on the program for the opening meeting are: "What Does the Public Expect of Its Hospitals?" "The Debt of Capital to the Hospital," "The Responsibility of the Public to the Hospital" and "How the Modern Hospital Meets Its Responsibility."

Programs dealing with current problems of the nursing profession will be presented each evening during the convention by the International Catholic Guild of Nurses, under the direction of Rev. Edward F. Garesché.

Clinical discussions will be conducted from equipment set-ups representative of the major divisions of the modern hospital, including administration, room and ward service, x-ray laboratories, general surgeries and an-

esthesia, special surgeries, obstetrics, clinical and pathological laboratories, physical therapy, dietetics, hospital architecture and engineering.

Those who will address the clinics on administration are: Dr. Malcolm T. MacEachern, associate director, American College of Surgeons, Chicago; M. R. Kneiff, B.S., Hospital Service Bureau, Catholic Hospital Association; Rev. Joseph F. Higgins, regional director, Catholic Hospital Association; and L. A. Austin, superintendent, Mount Sinai Hospital, Milwaukee. These speakers will cover the following subjects: organization and functioning of the medical staff; professional problems of a hospital; organization, facilities, management and procedures necessary for efficient hospital care of the injured; statements, statistics and budgets; publicity of financial facts; credits and collections; and decentralized purchasing versus centralized purchasing.

The speakers at the x-ray clinics will be Dr. Kennon Dunham, assistant professor of medicine, University of Cincinnati, Cincinnati; H. A. Newman, educational director, Chicago; W. S. Werner, electrical engineer, Covington, Ky.; and Dr. E. S. Blaine, Chicago. At these clinics it will be possible to get a fairly good idea of what constitutes a modern x-ray laboratory, the duties of the roentgenologist, and other x-ray department problems.

The surgery clinics will be conducted by the following: Dr. John M. Caldwell, Cincinnati General Hospital; Dr. Charles L. Scudder, Boston; Dr. G. J. Heuer, professor of surgery, University of Cincinnati; Dr. John R. Lundy, Mayo Clinic, Rochester, Minn.; and Alice P. Thatcher, superintendent, Christ Hospital, Cincinnati.

The surgery clinics will cover discussions on the questions of organization, equipment and management of a good fracture department; efficient technique and management of the major surgeries; ethylene gas anesthesia; planning, equipping and arranging the ophthalmology department; the ear, nose and throat examining room, its plan and upkeep; sterilization; mechanics of equipment and procedures and safeguards of efficiency.

### Two Clinics in Obstetrics to Be Held

Two clinics will be held in obstetrics. At the first will be discussed the planning and equipping of an obstetrical department, by Dr. Henry A. Woodward, obstetrician, Bethesda Hospital, Cincinnati; and management and procedure in obstetrics, by Dr. Henry Buxbaum, instructor in obstetrics, Northwestern School of Medicine, Chicago. The second, which will include a discussion on pediatric departments in children's hospitals, and modern methods of nursery service, will be under the direction of Dr. A. G. Mitchell, professor of pediatrics, University of Cincinnati; and Elizabeth Pierce, superintendent, Children's Hospital, Cincinnati.

Frank E. Chapman, director, Mount Sinai Hospital, Cleveland; C. F. Neergaard, B.A., New York; J. F. Gregoire, Hospital Service Bureau, Catholic Hospital Association; J. H. Stedman, South Braintree, Mass.; M. A. Higgins, M.A., Milwaukee; and H. P. Van Arsdall, Cincinnati, will be in charge of the clinics on hospital architecture and engineering. At these clinics such questions as planning the hospital from within; the economical

(Continued on page 172)



Architect, Alfred F. Priest,  
Los Angeles, Cal.

*The Glendale Sanitarium  
at Glendale, Cal. Painted  
clean to stay clean—with  
Barreled Sunlight*

## Chosen by this splendid sanitarium for painting walls and woodwork throughout

**T**HE Glendale Sanitarium has been called the finest institution of its kind on the West Coast. A reputation due in part to the spotless, cheerful cleanliness of the interior.

Walls and woodwork of corridors, stairways, kitchens, lavatories and offices are painted with lustrous, washable Barreled Sunlight—white or light-tinted.

Barreled Sunlight Gloss produces a surface so flawlessly smooth it can't hold dirt embedded. Smudges are easily removed with a damp cloth. A rich enamel finish with a "depth" peculiar to itself. Remarkably free-flowing, whether applied by brush or spray.

When used in the pure white, Barreled Sunlight is guaranteed to remain white longer than any gloss paint or



### White or easily tinted

By simply mixing colors-in-oil with Barreled Sunlight white, the painter on the job can easily obtain any desired shade. In quantities of five gallons or over we tint to order at the factory, without extra charge. For tinting small quantities our dealers carry handy tubes of Barreled Sunlight Tinting Colors.



*The sanitary, cheerful cleanliness so desirable in fine modern buildings of every type is maintained in the Glendale Sanitarium by painting with lustrous, washable Barreled Sunlight*

enamel, domestic or foreign, applied under the same conditions.

Barreled Sunlight Flat produces a finish extremely handsome and uniform.

Barreled Sunlight Semi-Gloss strikes a nice balance between the Gloss and the Flat.

Sold in large drums and cans. For priming, use Barreled Sunlight Undercoat. See coupon.

U. S. Gutta Percha Paint Co., 30-E Dudley Street, Providence, R. I. Branches: New York—Chicago—San Francisco. Distributors in all principal cities.

# Barreled Sunlight

Reg. U. S. Pat. Off.

U. S. GUTTA PERCHA PAINT CO.  
30-E Dudley Street, Providence, R. I.

Please send us your booklet "Interiors of Lasting Whiteness," and a panel painted with Barreled Sunlight. We are interested in the finish checked here.

Gloss ( ) Semi-Gloss ( ) Flat ( )

Name .....

Street .....

City ..... State .....

## NURSING AND THE HOSPITAL

Conducted by M. HELENA MC MILLAN, R. N.,  
Director, School of Nursing, Presbyterian Hospital, Chicago

# College Education Is a Valuable Asset for Nurses

By MRS. VERA SHIPLEY BRANDT, R.N.

Michael Reese Hospital, Chicago

**N**URSING has so recently been recognized as a profession that the status of schools of nursing is not generally understood by educators, by the public or even by many members of the profession itself.

I wish to present the problem of higher education for nurses in such a light as to show that a university education is not only a valuable asset but a vital essential in many fields of nursing; that there are unusual opportunities for women with advanced education in all fields of nursing; that universities have, in a number of instances, developed graduate and undergraduate departments of nursing to meet the needs of the profession and the community; and that the day is here when we must have in schools of nursing executives, instructors and supervisors who have not only had a thorough professional training but a well rounded college education as well.

Before we discuss the educational preparation for executives, instructors and supervisors in an undergraduate school of nursing, we need to know something of the curriculum of the school. After a careful survey of schools of nursing in the United States, the Committee for the Study of Nursing Education says that the training of the nurse involves a certain basic knowledge of the fundamental and biological sciences, theoretical instruction in the principles of nursing, and, above all, supervised practical training in actual nursing procedures. The study of anatomy and physiology, chemistry, bacteriology, and dietetics not only helps the student nurse to acquire specific information that is fundamental in the study of nursing, but trains her in accuracy of observation and statement, manual dexterity through the use of material and apparatus and judgment in drawing conclusions.

An elementary knowledge of these specific sciences is indispensable for the intelligent discharge of strictly nursing duties. It may be suggested that many of these courses might be given in the high school. That is true, but we find students entering schools of nursing who have not studied either biology or chemistry. Furthermore, the student may have been too young to realize the value and significance of the work that she has done. Therefore these courses must be taught in schools of nursing.

The director of a school of nursing is not only in charge of the nursing of the hospital, but, whether she herself be a teacher or not, she must be responsible for the educational tone of the school and its standards of teaching. It is she who must define the educational aims, outline the policies, plan courses and curricula, engage instructors and supervise their work. She must be an educator as well as a nurse. Yet rarely has this been the case. May Ayres Burgess, director, Committee on the Grading of Nursing Schools, New York, says:

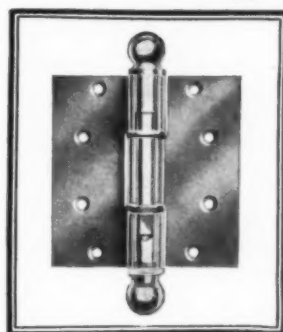
"It is well worth while to compare the education required to be the head of a nursing school with that required to be the head of a high school. The nursing school superintendent must be a graduate nurse. In addition, most hospitals require at least a few months of duty as head nurse. They do not require the completion of high school or college. They do not require any professional graduate study whatever. Almost any bright student can become a superintendent of nurses, if she has done a little supervisory work and is willing to start in a small school. Once she gets her start, she can keep going indefinitely.

"The principal of the modern high school has to meet different requirements. No bright boy or girl can hope, by finishing high school and then helping around for a few months, to step into the office of the principal. The high school principal of today, with a few exceptions, has finished high school, finished college, had some teaching experience, and then gone to one of the big professional graduate schools, where he has taken either his M.A. or his Ph.D. He has spent two or three years of postgraduate work on studying the technique of running a high school.

"Now running a training school for nurses isn't a simple job. If the high school principal needs to spend two or three years after he leaves college in studying educational administration, it seems reasonable to expect that the training school principal, who, like the high school man, is charged with the responsibility of running an important and highly complicated branch of a big business, ought also to have some definite professional education for her job."

We know that the high school principal is filling his

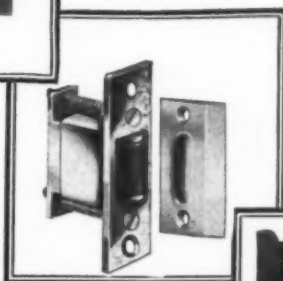
# Three steps to quiet



1

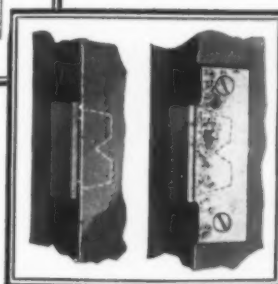
Here are the "Three Steps" which make the operation of hospital doors truly modern.

**FIRST**  
The McKinney Friction Control Hinge which holds the door in any position and prevents slamming.



2

**SECOND**  
The McKinney Noiseless Roller Catch takes the place of the metal latch and holds the door securely in its closed position. Ideal for Arm Pull operation. No knobs to turn. The hands are free.



3

**THIRD**  
McKinney Rubber Door Stops which act as a cushion for the door as it strikes the stop. Designed for metal trim (left) and for wood trim (right).

THESE three steps (already taken by a long list of splendidly equipped hospitals) result in the most completely controlled action of doors which has ever been available.

We use the word "control" advisedly. It has been greatly misused in the past. Here it means door action which can be made to suit any given condition without being out of control: full open, closed or open at any angle. The door will remain at whatever angle it is placed, yet easy steady pressure of the hand operates it smoothly and quietly.

For regulating ventilation, for free passage without holding the door, for quick closing, for any door action desired, the "Three Steps" are unexcelled. They are as follows:—*First*, three McKinney Friction Control Hinges per door which maintain just enough "grip" within themselves to hold the door in any position. The door cannot slam, yet it may be opened or closed with little effort. *Second*, a McKinney Noiseless Roller Catch which takes the place of the metal latch ordinarily used and makes possible the use of Arm Pulls for opening or closing doors, leaving the hands free. *Third*, three McKinney Rubber Bumpers for door stops which prevent noises caused by the door striking the stop.

At your request, a trial door will be equipped without cost or obligation. Thus you become acquainted with its merit under your own conditions.

## No Upkeep

The first cost of McKinney door-control hardware is the only cost. There is no upkeep, and nothing to wear out.

Some hospitals which have been equipped with McKinney Friction Control Hinges

ABINGTON MEMORIAL HOSPITAL	Philadelphia, Pa.
HOMOPATHIC HOSPITAL	Providence, R. I.
LUTHERAN HOSPITAL	Fort Wayne, Ind.
MATERNITY HOSPITAL	Toledo, Ohio
ONANDAGA GENERAL HOSPITAL	Syracuse, N. Y.
QUAKERTOWN HOSPITAL	Quakertown, Pa.
ST. JOSEPH'S HOSPITAL	Paterson, N. J.
ST. LUKE'S HOSPITAL	New York City
ST. MARGARET'S HOSPITAL	Pittsburgh, Pa.
U. S. VETERAN'S HOSPITAL	Muskogee, Oklahoma
WESTMORELAND HOSPITAL	Greensburg, Pa.

## MCKINNEY friction control HINGES

McKINNEY MANUFACTURING CO., Pittsburgh, Pa.

I will permit you to equip a trial door in our hospital with McKinney Hospital Hardware.

Send literature on your hospital hardware.

Name.....

Address.....

ML H 5-28

position satisfactorily because of his special training. We also know that the better schools of nursing have as their directors women who are not only expert in nursing but are highly educated as well. It is a well known fact that women with advanced education plus the necessary professional training are in demand for such positions. It seems hardly necessary to mention the need of well prepared women for the field of instruction. Certainly, the teacher of the sciences must have a background in the subjects which she is to teach. The high school teacher is given a broad knowledge of the subject matter which is to be taught. He is then given the theory of education, the history of education and the methods of teaching. He is required to do practice teaching and clinical work.

The Committee for the Study of Nursing Education found that the common defects in scientific instruction were largely due to a lack of good teachers, the number of properly prepared nurse instructors of science being totally inadequate. Can you imagine an instructor, ignorant of anatomy and untrained in dissection, attempting to teach dissection? A teacher, who is unable to guide the technique and who fails to point out important organs, is unquestionably unable to teach anatomy. Again we find instructors so unfamiliar with modern scientific teaching methods that they depend entirely on the recitation and quiz, using the same questions year after year. They fail to recognize the value of dissection as a means of stimulating interest and clarifying the subject, even when fresh material, such as frogs, rabbits and cats, is available. In other cases the lecturer is so automatic and lacking in interest, and the blackboard sketches are so inaccurate as to give no correct idea of the organ under discussion. Yet, we find many such instances.

It may not be so obvious that the teacher of nursing procedures needs as thorough a preliminary training as that of the science instructor. I believe that point will be conceded, however, when we consider that to her falls the task of correlating the whole nursing course. In the practical procedures, the student applies concretely all her other courses, since it is only for such concrete application that the rest of the curriculum exists.

#### Supervisor Has Unique Position

The supervisor holds a unique position in this scheme of education. She is an important link between the hospital and the nursing school. She is not only directly responsible for the nursing care of a limited division of the hospital but she has an unusual opportunity for bedside teaching, in which she can supplement the lectures and clinics of the physician instructor, and can aid the student in the application of her classroom work. In some instances the supervisor who has teaching ability does some classroom teaching. In this way, the nurse who has charge of the medical patients is teaching medical nursing, and the graduate in daily contact with sick children is teaching the care of sick children.

But to do the teaching, the supervisor must be prepared in the subject matter which is to be taught and must have a knowledge of methods of teaching. It is unfortunate that many unusual opportunities for excellent teaching are being wasted because of the failure of the supervisor as a teacher. It is due to the recognition of this need that the first graduate course for the preparation of nurse administrators and instructors was established at Teachers College, Columbia University, New York, in 1889. Properly qualified nurses are admitted to the junior class and are given two years of college credit for the three years of nursing training. Although the influence of Teachers College in training and sending

out nurse instructors has been countrywide, yet to supply trained teachers of science to all or nearly all the training schools of the country has obviously been beyond its possibilities.

In 1896, the District Nurse Association, Boston, gave a four months' course for advanced instruction in public health work. Later, Simmons College with the District Nursing Association assumed joint direction of the course and established a school of public health nursing. The regular courses in the college curriculum that have been especially useful to graduate nurses have included English, the sciences, the theory and history of education and methods of teaching.

#### Nurse Should Study Psychology

It will be readily conceded that psychology if not a part of the student's undergraduate work should be included in her postgraduate studies, not only for the purpose of helping her to make satisfactory adjustments to a new environment and of enabling her to deal properly with her difficult patients, but to give her a better understanding of mental nursing and psychiatry. Sociology is a course of great value to her also. She is essentially a social worker and needs to be made to realize her usefulness in this field. Dr. William L. Bailey, Northwestern University, Chicago, says:

"A hospital is a sociological laboratory. . . . The nurse no longer needs to defend her position as a social worker in a unique and vital way. It will not be a step forward but one backward when this phase of the nursing profession is segregated as a specialized job for a 'hospital social worker.' It is an integral and organic phase of the work for every trained nurse."

Besides these general courses which play an important part in the preparation of the nurse educator, special courses have been arranged at Teachers College. These include administration, supervision and teaching in schools of nursing. Recently these courses have been given in a number of universities. They are of great benefit to the younger members of the profession, who in this way are able to profit by the advice and suggestions of those experienced in solving problems common to all. Special courses for the public health nurse have been so beneficial in their results that practically all public health associations are now making actual experience or a graduate course in public health work a prerequisite.

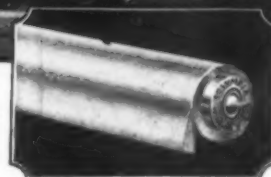
It is interesting to note that the majority of failures in the public health nursing field have been due to lack of appreciation on the part of the nurse of her rôle as a health teacher and of the preventive measures to be taught, as well as a lack of knowledge of methods of teaching. She must be awake to the social problems involved. Here again we find that methods of teaching and sociology are the two studies that are almost indispensable. Because of the success of the graduate department in providing this training, and because of the need of a larger number of women so prepared, there have developed, in a number of our best universities, undergraduate schools of nursing in which the nursing curriculum is so combined with that of the university that at the end of five years the student receives not only her nursing diploma but her Bachelor of Science degree as well.

Anna D. Wolf, M.A., R.N., associate professor of the department of nursing recently organized at the University of Chicago, believes that the advantages of a university or college relationship for schools of nursing are likely to be great. She calls attention to the fact that precisely those essentials in an educational work which the hospital finds it most difficult to supply, such as



LYNN HOSPITAL, Lynn, Mass.

Architects: Kendall, Taylor & Co. Boston, Mass. General Contractor: Cunningham Construction Co. Boston, Mass.



When you decide to mount your window shades on *Columbia Rollers*, you have saved yourself the trouble of thinking about shade rollers again for a long time. For *Columbia Rollers* have the happy habit of just keeping on working.

When and why  
we recommend

## Damasko Hevi-Duty Window Shades

How often will the window shades be raised and lowered?

*Half a dozen times during the course of the year?* All right. In that case, practically any ordinary make of window shade will give satisfactory service.

*Half a dozen times per day?* That's the daily grind of the average hospital window shade. It is constantly being adjusted—snapped up and jerked down—by people who never think of being careful.

For hospitals, therefore, we recommend our special Damasko Hevi-Duty Window Shade. This shade lives up to its middle name—it's made ex-

pressly for heavy duty, hard wear and rough treatment. Its fabric is a strong, closely-woven, unfilled cambric—guaranteed not to crack, tear, show pinholes or stretch out of shape. This window shade is manufactured in a wide variety of beautiful colors.

At the present time, Damasko Hevi-Duty Window Shades are doing heavy duty in scores of America's finest hospitals—*heavy duty* that means *light* repair and replacement bills.

The Columbia Mills, Inc., 225 FIFTH AVENUE, NEW YORK  
Baltimore Boston Chicago Cincinnati Cleveland Dallas Detroit  
Fresno Kansas City Los Angeles Minneapolis New Orleans Philadelphia  
Pittsburgh Portland (Ore.) St. Louis Salt Lake City San Francisco Seattle

*Columbia*  
GUARANTEED  
WINDOW SHADES  
and ROLLERS



Send for your copy of

"Window Shades"

This interesting book tells all about window shades, window shade rollers and roller brackets, approved methods of hanging window shades and suggests the most suitable type of shade for each kind of building. It also contains the useful "Standard Specification for Window Shades." For your copy mail the coupon to Columbia Mills, Inc., 225 Fifth Ave., New York City.

Name.....  
Street.....  
City.....MH 5-28

properly equipped classrooms and other teaching material, are freely available in every college or university of good standing. It must be recognized, however, that at present college professors are not equipped to apply their subjects to the special problems of the nurse, so that instructors and supervisors must be secured who are properly prepared to meet the requirements of the university as well as those of the nursing school.

For those who have had the advantage of a broad education and also a carefully balanced course in nursing, there are many attractive fields besides those connected with schools of nursing. The position of director of a public health organization offers opportunities of exceptional scope and authority for a woman of executive ability. Comparatively few positions are open to a woman in the business world involving the annual expenditure of a budget of \$100,000 or more, and the direction of important policies and a large staff of workers. For those interested in the dispensary and out-patient department there is a rich field for the teaching of the student nurse as well as the patient. In fact in all fields of public health work there is such a demand for skill in nursing and teaching, adequate social training and case work, that special professional training is requisite.

I believe it is scarcely necessary to call attention to the fact that all the types of nursing that we have discussed require the ability to teach. You will readily agree that executives and instructors in schools of nursing are responsible for teaching the students and that public health workers must teach their patients. We have seen that in order to teach, one needs to know not only the subject matter to be taught but also methods of teaching. This background in material and principles of teaching can be obtained only in university work. Many of the best universities throughout the country have so awakened to this fact that they have established special departments for nurses. At present the demand for women with this broad preparation has far exceeded the supply to the extent that executive and teaching positions are frequently inadequately filled. I quote the Committee for the Study of Nursing Education once more:

"Superintendents, supervisors, instructors, and public health nurses should in all cases secure special additional training beyond the basic nursing courses."

### The Nurse's Part in Life

Is it necessary that the nurse sacrifice the human side of life for the professional side? Must she give up all the pleasures which to many of us mean life itself? Must she give up her chances for riches and luxury that she may more completely give her life to the relief of suffering humanity? In many cases great sacrifices are made by members of the nursing profession, and according to Dr. A. Levinson, attending pediatrician, Michael Reese Hospital, Chicago, a nurse, in order to acquire proficiency of the highest type, must consider that her training, education and occupation come before everything else.

A nurse, who is a nurse merely for lack of something better to do, or who is merely seeking adventure in that field, has not been endowed with the true spirit of nursing, and could never find herself equal to such sacrifice as was exemplified by Florence Nightingale.

All of us are human, but to know when to be human and when being human may mean the loss of life, is part of the nurse's education.

As well as being an expert in the care of the sick, the nurse must be a good psychologist so that she may better

handle the sick, and at the same time, by the utterance of a few elastic phrases, may assure the relatives of the sick that all is well. By a clever maneuvering of words, the nurse in many cases can relieve the mental strain on the relatives of the patient, prevent hard feelings if everything is not just as the patient would like it to be, and often can induce the patient to follow the doctor's advice when relatives, neighbors and friends are continually putting contrary ideas into his head.

The nurse's work, to her, should be sacred, a piece of art, a form of worship in the Temples of Hygeia and Esculapius, the gods of good health and healing.

If, in leading the life of an ideal nurse, she can find time for fun, and can accumulate a fortune, that is in her favor, but her pleasures should lie in her work, and she should be ready and willing at all times to sacrifice an hour's pleasure for a week of work.

### Self-Government Among Nurses Proves Satisfactory

Self-government in nurses' training schools has not been practiced to a great extent throughout the country, but at the Yale School of Nursing, New Haven, Conn., we find that it has not only been experimented in but has proved successful.

A recent article in the *American Journal of Nursing*, written by Norma Sauer Selbert, R.N., instructor, Ohio State University, who has spent a year in residence at the Yale School of Nursing, tells something of the success of the system as applied at that institution.

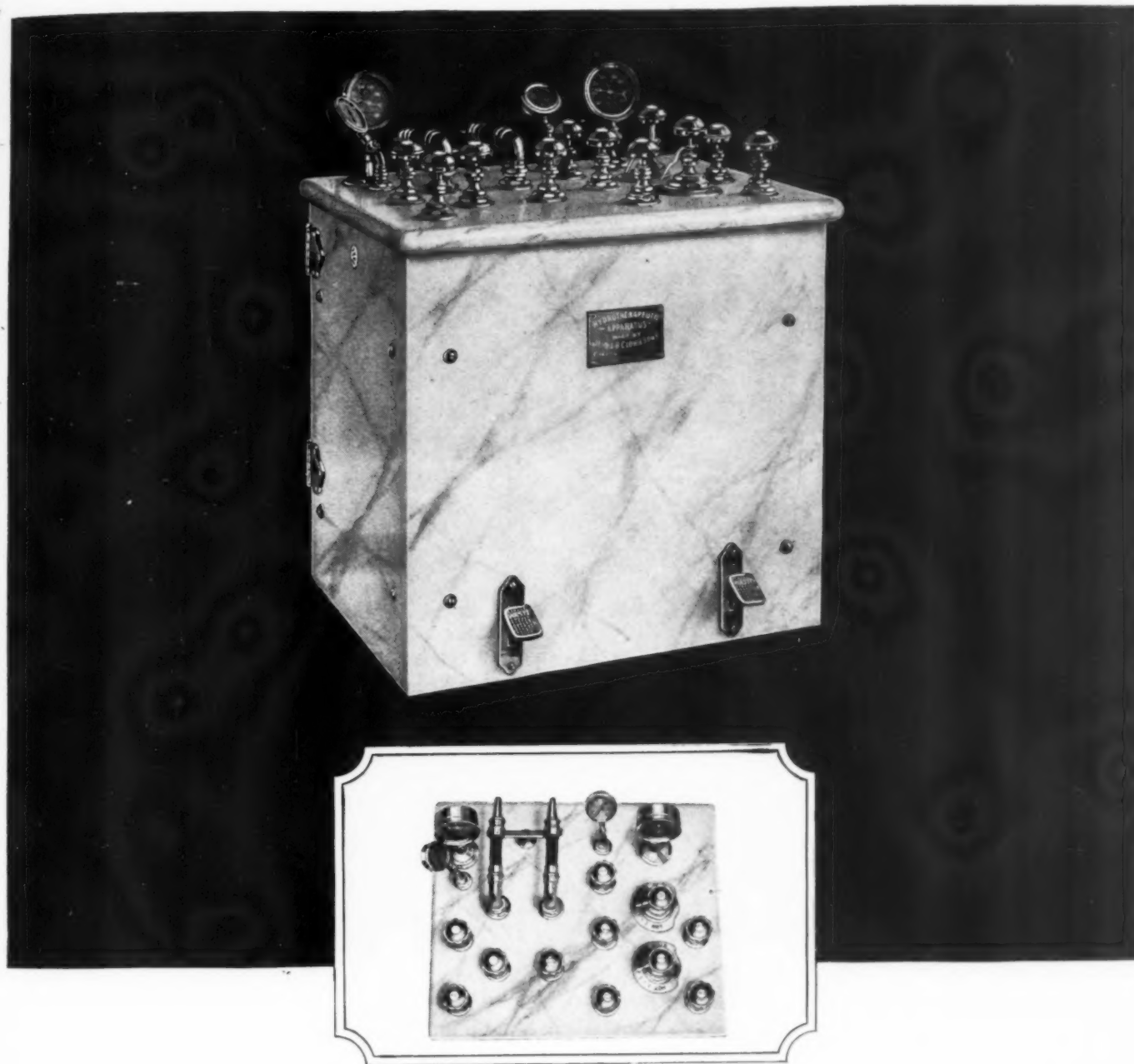
Nathan Smith Hall, the residence of the nurses at the Yale School of Nursing, resembles a well regulated club, and is recognized as a vital part in the educational program of the school. The management of the house is based upon the assumption that all who live there are responsible beings, willing to be regulated by a house committee the members of which are elected from the various groups in the house. The residents of this hall number about forty-five students and the members of the faculty, thirteen.

The members of the governing body are elected yearly by vote of the resident body. Two representatives are chosen from each of the following groups: freshmen, juniors, seniors and faculty. The regular meetings of the house committee are held monthly, and are preceded by individual meetings of the different classes. Thus the representatives of each group bring to the committee opinions of members of their class.

Each person in the house is going to be either aided or hindered by the regulations drawn up by the committee, so of course she will promote the enactment of the rules she recognizes as just and fair. If certain set rules are fixed, without the voice of the resident body, the keeping of these rules is apt, in many cases, to become artificial, and some of the rules will be broken at the first opportunity. On the other hand, when a person has the liberty of governing himself, he will generally do the right thing, and in this way show his appreciation of self-government.

The resolutions of the committee are presented to the administrative council, composed of the dean and members of the faculty, and the approved resolutions are executed by a matron or residence director.

It has been found that from this system of self-government have evolved home standards that are readily adopted by the students, who apply these standards not only in their living quarters but in the classrooms.



## World's Largest Manufacturers of Hydrotherapeutic Fixtures

Clow Hydrotherapeutic Fixtures are on duty in Canada, Cuba, South America and many other countries besides the United States.

Not only are Clow the largest manufacturers of Hydrotherapeutic Fixtures, but Clow Engineers have originated and designed many of the standard Hydrotherapeutic Fixtures in general use today.

Clow Engineers are available for information and advice on any phase of Hydrotherapy. Use this service at any time.

Above is shown side and top view of the Clow Control Table. Side view shows two foot pedals for operating drain valves. Top view shows arrangement of supply and control valve, temperature and pressure regulating devices.

JAMES B. CLOW & SONS, 201-299 N. Talman Avenue, CHICAGO  
*Sales offices in principal cities*

# CLOW

PREFERRED FOR EXACTING PLUMBING SINCE 1878

## DIETETICS AND INSTITUTIONAL FOOD SERVICE

Conducted by LULU G. GRAVES, 7 East 54th Street, New York, MARY A. FOLEY, Director of Dietetics, Kahler Hospital, Rochester Minn. and S. MARGARET GILLAM, University Hospital, Ann Arbor, Mich.

# Principles of Diet\*

By HARRY GAUSS, M.S., M.D.

Department of Medicine, University of Colorado, School of Medicine, Denver

**I**N TAKING up the principles of the application of diets to disease states, it becomes desirable if not essential to refresh one's memory with the fate of food within the body, that is, the physiology of digestion. Because certain foods have definite relationship to certain organs of digestion and assimilation and inasmuch as the organ related to the metabolism of a certain food may be involved in the disease process, that specific relationship must be borne in mind in enforcing the cardinal principle of the application of diets to disease states, which is rest to the diseased organ or organs.

Digestion begins in the mouth. In response to the presence of food, saliva is elaborated by three pairs of glands, the submaxillary, the sublingual and the parotid. The saliva contains ptyalin, or amylase, which is capable of splitting certain carbohydrates, breaking up the starch into maltose, at which stage the maltase which is present splits the maltose into glucose. This ptyalin acts in alkaline, neutral or combined acid solution but not in the presence of free acid. Digestion is continued in the stomach, where the gastric juice is elaborated which contains hydrochloric acid, rennin, pepsin and a minimal amount of lipase, the last being of little importance.

Gastric digestion is concerned principally with the preparation of proteins for further metabolism. Free hydrochloric acid is formed by the parietal cells in the concentration of 0.4 to 0.5 per cent free acid; actually in the gastric juice it is usually found only 0.2 per cent, due to regurgitation of the alkaline contents from the intestine. Combined hydrochloric acid results from union of the free acid with the proteins forming a protein salt of the hydrochloric acid. Pepsin, the most important proteolytic enzyme, originates from its pre-existing zymogen, the pepsinogen, and is activated by the hydrochloric acid. Pepsin is active in acid but not in alkaline or neutral solutions. Pepsin initiates proteolysis, which yields a long line of cleavage products, especially the soluble proteoses, peptones and peptids. Rennin is the enzyme of the stomach, whose function is protein coagulating or milk curdling. It is active principally in acid medium. Gastric lipase has been shown to be present but is of little importance according to present knowledge.

A certain amount of absorption takes place in the

stomach. Among the substances absorbed are simple sugars, salts, water, drugs, proteoses and alcohol. The remaining chyme, as the partly digested food is now termed, enters the small intestines where it is acted upon by the pancreatic juice and bile which enter the duodenum through a common opening, also by the intestinal juices elaborated within the intestine itself. The mechanism of the secretion of pancreatic juice has been one of the most fascinating problems in physiology. The pancreatic juice is not stimulated by direct contact of food or by nervous reflex, but is dependent upon the presence in the epithelium of the duodenum and jejunum of a body known as prosecretin, which is changed to secretin through hydrolytic cleavage of the acid present in the chyme.

The secretin is absorbed into the blood whence it reaches the pancreas to initiate the flow of pancreatic juice. The mechanism of the flow of bile has not yet been satisfactorily explained, although recent work tends to show that it is associated with the presence of fat in the duodenum. Another fascinating problem that yet remains unexplained is why there exists a single pin point opening for the entrance of the digestive juices of two such important organs as the pancreas and liver.

The pancreatic juice contains trypsin, a proteolytic enzyme, amylase, a starch splitting enzyme, steapsin, a fat splitting enzyme, rennin, a milk coagulating enzyme and erepsin, a peptid splitting enzyme. The trypsin resembles pepsin but has a much greater digestive power to split the complex molecule and is active in alkaline medium. Its end products are proteoses, peptids and peptones. The erepsin then carries on the digestion splitting these into a long list of simple amino bodies, such as tyrosin, glycocoll, etc.

The pancreatic amylase or amylase converts starches to dextrins and sugars, and is more powerful than the salivary ptyalin. Steapsin, the pancreatic lipase, is activated by the bile to split neutral fats by the process of hydrolysis into fatty acids and glycerol, so converting them to the water soluble state, an essential preliminary to assimilation. In addition, the pancreas, through its islets of Langerhans, elaborates an internal secretion which passes into the blood and controls the metabolism of sugars within the tissues. The succus entericus, as the intestinal juice proper is called, contains erepsin, a proteolytic enzyme which acts on proteoses, peptones, and

\*Owing to the length of this article, the discussion dealing with the more elementary phases of diet have been omitted.

# GREATER EFFICIENCY

IS SURE TO RESULT FROM USING



**Visible Clinical Record Chart Desk C.A.6**  
32 in. high, 37 in. wide, 28 3/4 in. deep  
To Hold Thirty Special Noiseless Aluminum  
Book Form Chart Holders  
Rack size 31 1/2 in. wide over all;  
13 3/4 in. deep

## Schoedinger's Visible Clinical Record Chart Filing System IN YOUR HOSPITAL

This system is accurate—quick—noiseless—safe, and has brought added efficiency to every Hospital in which it has been placed.

In this System all name plates are visible—seen at a glance—and all opportunity for mistakes and delays eliminated.

The Aluminum Chart Holders used in these racks are easy to open and close, and are absolutely noiseless. A great improvement over old type.

This Desk is made in tubular construction and is full acetylene and electro welded.

This Desk has two commodious drawers and is mounted on 3" felt casters.

The tops of these desks are covered with polished plate glass, battleship linoleum, or Bakelite as desired.

*Write today for prices*

**F. O. SCHOEDINGER**  
Manufacturer

Columbus

Ohio

## Century 15 Qt. Mixer

The Century 15 Qt. Mixer will perform dozens of time-consuming kitchen duties. It beats, whips, mixes, grinds, strains, and slices; in fact, once installed, you will find it saving time and money on an endless number of operations.

Power is secured from an ordinary lamp socket.

The Century 15 Qt. Mixer is equally adaptable to the large kitchen where it relieves the large mixers of many small tasks and to the small kitchen where it will prove perfectly capable of handling all mixed problems.

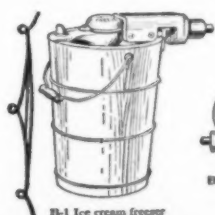
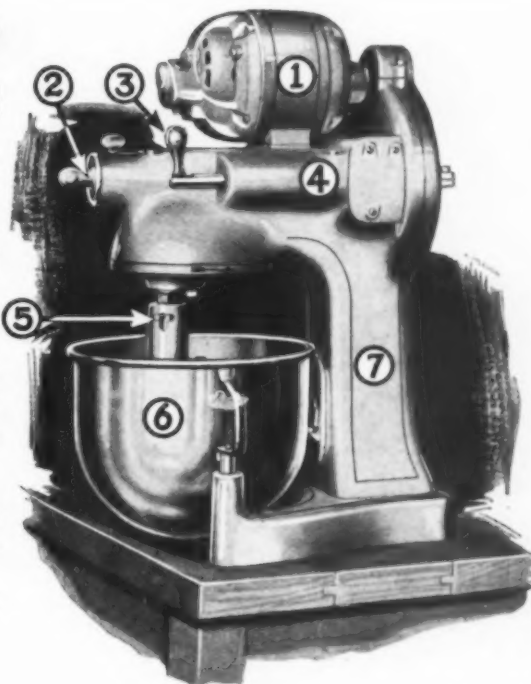
Four sizes of Century Mixers ranging in capacity from 15 to 80 qt. bowl capacity are available.

*Write for bulletin giving complete details.*

**THE CENTURY MACHINE CO.**  
1426 MARBURG AVE., OAKLEY, CINCINNATI, O.

*Some of the Attachments for the 15 Qt. Mixer*

- 1—Especially constructed motor will not burn out under overload.
- 2—Grinder, slicer and other attachments are quickly attached here.
- 3—Three speeds—automatic "cut off," therefore no switches are manipulated when changing speeds.
- 4—Speed box fitted with extra heavy gears.
- 5—All whips and beaters are self-locking—on or off with one easy motion, no springs, nuts, clamps or bolts to fool with.
- 6—15-quart heavily tinned seamless bowl easily taken off or put on—no clamps or fasteners to bother with.
- 7—Machine finished in beautiful gray hard lacquer.



B-1 Ice cream freezer



B-2 Meat grinder



B-3 Colander



B-4 Combination vegetable slicer, crumber and grater



B-5 Mayonnaise oil drip



B-6 Tool sharpener



B-7 Fruit juice extractor for lemons, oranges and grapefruit



B-8 Coffee and spice grinder

peptids and splits them into amino acids; also sucrase, lactase and maltase which act on their respective sugars; also enterokinase which activates the trypsin and the secretin which stimulates pancreatic secretion.

In the small intestine the greatest amount of absorption of the ingested meal takes place. Carbohydrates, such as dextrose, are absorbed into the portal circulation where they are carried to the liver to be stored as glycogen. Fats are absorbed as fatty acids and glycerin by the epithelial cells of the intestinal mucosa, and synthesized into the

Diagram illustrating the anatomic locations of principal steps in digestion and elimination—

factors that enter into certain dietary problems. 1—Digestion begins in the mouth, saliva acts on

certain starches. 2—Stomach elaborates the gastric juice which contains hydrochloric acid, rennin and pepsin which break up the proteins; absorption takes the place of the simple sugars, salts, water, drugs, alcohol and the proteoses. 3—Pancreatic juice enters the duodenum and contains lipase (fat splitting), amylase (starch splitting) and trypsin (protein splitting) enzymes. 4—Bile produced in the liver enters the duodenum through the common opening together with the pancreatic juice. The bile helps to prepare the fats for assimilation. 5—The small intestine elaborates the succus entericus which contains enterokinase, erepsin, and nuclease, which prepare proteins for assimilation; also invertase, maltase and lactase which act on the sugars; finally, secretin, a hormone which stimulates the pancreas and liver. In the small intestine the greatest amount of absorption takes place of all three of the principal food-stuffs. 6—The colon acts principally as the excretory organ of the digestive system. 7—The kidneys act as one of the principal excretory organs for extra-intestinal metabolism.



desired neutral fats and passed on to the lacteals and ultimately to the thoracic duct and venous blood. Proteins are absorbed by the blood vessels of the villi in the intestine. Let us take cognizance of a most interesting phenomenon just mentioned casually. We have here in the intestine in the process of assimilation a selective natural classification of food into carbohydrates, fats and proteins. The large intestine functions principally as the excretory organ of the digestive tract. Its specific function is the forming of feces and the ejection of it from the body. Receiving a fluid chyme it converts this into putty like ejecta and then expels it.

The kidneys must be mentioned because no discussion of body metabolism is complete without them. They perform the same function for internal or tissue metabolism that the colon does for gastro-intestinal metabolism, namely, they excrete the waste matter resulting from the end products of tissue metabolism.

In the application of diet to disease states, which is the problem of special diets, one of the cardinal principles used is that of rest to the disordered parts. Just as rest is given to a fractured bone by placing the injured ex-

tremity in a cast, or as a tuberculous lung may be collapsed, as in pneumothorax, so rest is given to that part of the digestive or other system which is involved in the disease process, as far as it is physiologically possible to do so. Rest may be absolute or relative. An instance of absolute rest is the employment of starvation in the treatment of gastric hemorrhage. More often relative rest is employed. The principle of the basic maintenance diet is often employed to eliminate all unnecessary metabolic activity for all the organs. Sometimes it is desirable to give less than a maintenance diet, as in the case of profound toxemia in the first stage of fever, but it must be borne in mind that the patient will lose weight under this regime and this must be compensated for later.

### How Food Properties Are Utilized

At other times the purpose of a special diet is to stimulate, as in the treatment of the achylia of the stomach, when the secretory stimulants are given, or in colonic stasis where peristalsis promoting foods are given.

Foods have definite physical, chemical and physiologic properties, aside from their chemical composition. Ordinarily we do not think of soda crackers as a chemical reagent, for we have been taught to associate the word "reagent" with acids, bases and salts. But if a soda cracker is added to a weak solution of hydrochloric acid and enters into chemical combination with it, it becomes a reagent just as surely as sodium bicarbonate would under similar circumstances.

Some of the physical, chemical and physiologic properties of foods are utilized in special diets. Among others the following are used: digestibility of food, reaction to intestinal peristalsis, reaction to stimulation of the gastric juice, the percentage grouping, especially with reference to the carbohydrates, salt content, iron content, calcium content, residue content, acid ash residue, alkaline ash residue, vitamin content, ketogenic properties, anti-ketogenic properties, etc. It is beyond the scope of this paper to discuss all of these properties of foods, however a few will be mentioned.

### Digestibility of Food

Digestibility of food is determined by the rate at which it may be converted into the water soluble state, since it is in this state that assimilation takes place. This is dependent upon its physical state, the amount of residue, its chemical structure and mode of preparation. The order of digestibility on basis of this criterion is:

- I. Liquid Foods: Those already liquid, such as milk, broth, gruels, soft eggs.
- II. Liquids at Body Temperature: Those foods which are solid at room temperature, but become liquid at body temperature, such as jellies, ice cream, butter, gelatin.
- III. Solid foods in a finely divided state, such as mashed potatoes, puréed vegetables, cereals.
- IV. Solid foods held together by much fiber, such as meats, raw vegetables, tough meats.
- V. Fried Foods. Frying generally renders most foods indigestible by surrounding the constituent cells with an envelope of fat, which interferes with gastric digestion.

### Reaction of Foods to Peristalsis

#### I. Stimulating:

1. Foods containing an apparent laxative principle, such as figs, prunes, rhubarb, apricots, all berries.
2. Lubricants, olive oil, butter, all animal fats, nuts.
3. High residue foods, bran, cabbage, turnips, spinach, whole wheat bread, most cereals.
4. Water taken "on empty stomach."

## And when the job is done?

EVEN if the operation were successful in every particular—the incision clean—the conditions favorable—all your faculties co-ordinating with swift assurance—are you satisfied with the ligatures you used? Have you faith in materials equal to the faith you have in your assistants?

For a third of a century Armour Laboratory has been collaborating with the medical profession to justify its faith in the materials it produces. It is only reasonable that results have merited the approval of hospitals throughout the world! Armour Laboratory has at its command vast supplies of fresh materials from which to experiment and manufacture organotherapeutic products. Extraordinary care and skill go into the production, for instance, of ligatures. We will be very glad to send you samples. They may be used with utmost confidence. The same applies to pituitary liquid.

Where the Armour label appears on medical supplies, you may be sure it is the best that can be produced of its kind. The tremendous demands of modern medical practice make it imperative for us to keep strides with the demand both for quantity and excellence. This is why Armour Laboratory is recognized as "headquarters for medical supplies of animal origin."

**ARMOUR AND COMPANY** Chicago



## II. Inhibiting:

1. Foods containing an apparent astringent principle, such as tea, cocoa, chocolate, red wines.
2. Low residue foods, such as milk, cheese, eggs, macaroni, polished rice, white bread, meats.

### Reaction of Foods to Acidity of Stomach

(in order of acid promoting)

1. Acid containing foods, all fruits, especially lemons, oranges and grapefruit, vinegar.
2. Strong secretory stimulants, beef, chicken, lamb, pork, turkey, veal, condiments, pepper, mustard.
3. Weak secretory stimulants, bread, cereals, eggs, gelatin, ices, junket, milk, vegetables.
4. Ready-acid-combining foods, such as milk, soda, crackers, soft boiled eggs.

### The Kosher Dietary Laws

Of historical interest are the ancient dietary laws of the Hebrews which have been employed by these people for some 2,500 years. These constitute perhaps the oldest system of dietetics employed today. When dealing with orthodox Jews, their Mosaic Laws of diet should be respected. In fact it is not possible to ignore them. Patients will refuse food if it is served "unclean" or "trepha." Observance of a few simple rules will greatly facilitate what appears to be a difficult dietetic problem. There is no conflict between modern dietetics and the ancient dietary laws of the Hebrews. The two may be correlated with a little effort, and the results justify the labor, for instead of a disgruntled, unhappy, recalcitrant patient, who either refuses his food or partakes of it sparingly, we have a contented cooperative individual, who is far more likely to react favorably to treatment.

According to the Mosaic Law all food is divided into "Kosher" or "clean" and "Trepha" or "unclean." The list of permitted foods, in contradistinction to forbidden foods, is given in the following outline. Further within the list of permitted foods there are three subdivisions—the flesh foods, the neutral foods and the dairy foods. Flesh foods and dairy foods must not be served together, but either of these may be combined with the neutral group. After serving either a flesh or dairy food, an interval of several hours must elapse before serving the other.

All foods are divided into Kosher, which are clean, and Trepha, which are unclean. Among the Kosher foods which are permitted are most birds, except birds of prey, such as eagle and hawk. Ruminant mammals are permitted, such as cow, deer, sheep. The forequarters only may be used. All other mammals, such as pig, horse, dog are forbidden. Fish having scales and fins, such as bass, trout, salmon, are permitted; all other marine life, such as oysters, clams and eels are forbidden.

Meats to be Kosher must be killed and inspected by a church veterinarian; by a single stroke of a sharp knife; the proper blessing must be asked; the meat must be washed and salted in prescribed manner. Permitted foods are divided into:

A. Flesh Foods	B. Neutral Foods	C. Dairy Foods
1. Cow	1. Bread	1. Butter
2. Sheep	2. Cereals	2. Milk
3. Deer	3. Fruits	3. Cream
4. Bird	4. Vegetables	4. Cheese
5. Animal fat	5. Nuts	5. Their products
	6. Fish	
	7. Eggs	

All foods prepared with fat, oil, or grease, such as cakes, gravies and desserts fall into either the meat or

dairy group, depending upon whether an animal or dairy fat has been used in their preparation.

### Principles of Special Diets

Among the disease states for which special diets are employed, using some of the foregoing principles are:

**Acute Infections:** In the stage of onset the principles employed are comparative intestinal rest and easily digested and easily assimilated foods, consequently liquid and semisolid foods are given because these are the most digestible forms of food. In the second stage, that of the continued high fever, a basic caloric diet of easily digested foods is given, while in the third or convalescent stage, there is a restoration of the balanced diet with appreciable increase in caloric content. There is no such thing as a standard fever diet. The course and nature of the fever are the indication for the diet. Obviously in typhoid fever the second stage of the diet is continued considerably longer than in pneumonia. The diets must be varied from day to day to relieve the monotony. In fevers of more than one week's duration the second stage diet may be increased to guard against an undue loss of weight.

**Chronic Infections:** Such infections as tuberculosis require a high caloric diet with high protein content, to provide ample protein material for tissue repair. However, the danger of excessive protein intake to the cardiovascular renal system must be considered.

**Disease of the Gastro-intestinal Tract:** In the management of peptic ulcer, the time honored Sippy treatment has found great favor both here and abroad. The treatment begins with three ounces of half milk and cream every hour for thirteen hours. Upon analysis, it is noted that this diet is the most bland diet known to us; it is of low secretory stimulus to the gastric juice; it readily combines with the free hydrochloric acid; it is the most digestible form of nutriment; it provides 1,591 calories, which is approximately a basic diet for the average man at bed rest; it provides the proper amount of necessary fats, proteins, salts, carbohydrates and vitamins; its ketogenic antiketogenic ratio, which is 1.4 to 1, will satisfy even the most fastidious dietitian. In fact, with one possible exception, namely, that it fails to provide sufficient roughage, it answers every requirement for an ideal diet. However, this one shortcoming is usually compensated for by the magnesium oxid which forms an integral part of the regime and this supplies the laxative action.

In functional disorders of gastric secretion, such as hypersecretion, those foods are given that exert a weak secretory stimulus upon the gastric juice, such as milk, cream, cocoa, fats, starches and other bland foods. In hyposecretion, on the other hand, as in the achylia, the strong secretory stimulants are given, such as coffee, rare meats, carbon dioxid beverages, fresh fruits, acid fruits, spices, light wines.

**Functional Disorders of the Small Intestines:** In fermentative diarrhea, being a disturbance of carbohydrate metabolism within the gut, it is customary to withdraw carbohydrates from the diet after a preliminary period of starvation, whereas in putrefactive diarrhea, which is a disturbance of protein metabolism within the gut, it is customary to withdraw proteins from the diet during the treatment. Specific diarrheas must be treated specifically, in general a residue free bland diet is indicated until the diarrhea is under control.

**Colon:** In atonic constipation the principles of diet are, a diet high in fat, residue, and natural laxative foods. In spastic constipation a similar diet is found useful, al-



Model 1114 Thrift Oven installed in the Roosevelt Hospital, New York, N. Y. This oven is used for practically all the baked foods served.

*You Can Emphasize the More Economical and Healthful Baked Foods with*

## *The THRIFT Gas Oven*

Baked foods should take a prominent place on every hospital diet—not only because they are economical in themselves, but because they are healthful and appetizing.

The unique construction features of the Thrift Gas Oven bring about such uniform heat distribution that each deck is available for baking of the highest quality.

But the Thrift Oven is designed, not only to bake better, but to bake at lower costs. It is the most economical of its type in existence. It fits conveniently into the limited quarters of the diet kitchen, as well as in the larger kitchen. It is so well insulated that very little heat is given off while in operation.

Made in 3 and 4 deck models, the Thrift Oven can be supplied with automatic temperature control, if desired.

*Ask for Bulletin N-2. It's worth studying.*

### **The Surface Combustion Co.**

2375 DORR STREET, TOLEDO, OHIO  
Branch Offices in All Principal Cities

Utilization Division of the Combustion Utilities Corporation

THE LAST WORD IN PORTABLE BAKE OVENS



## ALL-KRAFT PAPER TOWELS



## "You Win . . . . Bay West Towels are O.K."

Physicians soon discover that Bay West all-kraft towels are different from the old fashioned kind. Once they are converted, they wouldn't think of using any other towel service.

### Bay West DUBLTOWLS

Two delightfully soft sheets of strong, all-kraft crepe served as one towel. Twice as many per carton. The most acceptable paper towel made.

### Bay West SINGLTOWLS

An excellent towel service at low cost per towel. One strong, heavy, all-kraft sheet dispensed at a time.

### Bay West CABINETS

A great variety of cabinets available. Bay West towels can be served from any standard cabinet. Write for complete catalog of Bay West Dispensing Cabinets.

Bay West Paper Co., Green Bay, Wis.



### FREE TRIAL OFFER



Bay West Paper Co.,  
Green Bay, Wis.

Please send me a Deluxe Dispensing Cabinet and several packages of both towels for free trial. It is understood that no obligation is involved and that carrying charges will be prepaid.

Name .....  
Address .....  
Hospital .....

though the management of the latter condition usually requires the employment of some antispasmodic, such as belladonna. In nonspecific colitis, the principle of rest is employed by using foods that tend to be completely digested in the stomach and small intestines and whose digestion and assimilation being practically completed with the small intestine, little remains for the large intestine to do, which may then enjoy a period of rest.

**Liver:** Treatment of liver disorders is still in an unsatisfactory state, because the altered physiologic states of this organ are poorly understood in comparison to some of the other organs. In general, fats are curtailed because of the impression that this procedure removes the burden of work from the liver, and starches are also curtailed to diminish the work of glycogen storage.

**Malnutrition and underweight** generally respond to high caloric intake, when combined with high vitamin, high iron and high calcium content of the diet. Obesity being a condition of excess fat in the body, which is interpreted as excessive energy reserve, a physiologic attack upon this fat is made by curtailing the energy intake and reducing the caloric intake down to 1,200 calories, but nevertheless safeguarding all the essentials of the balanced diet. Given the intelligent cooperation of the patient, this is one of the most satisfactory dietetic problems. Where the obesity is due to endocrine disorders, specific glandular therapy must be combined with the low caloric diet.

In gout and allied disorders of purin metabolism, a diet is planned with a two-fold purpose, first, to reduce the purin-forming substances, such as meat and fish. Eggs are given as the necessary protein, as these are thought to contain a minimum amount of purin-forming substances. In the second place, elimination is encouraged by flushing the kidneys freely with fluids.

**Nephritis:** In general the diet is planned with a view to the reduction of the fluid intake, salts and proteins. This is the basis of the Karrell treatment and also Allen's method.

#### Diabetes Demands Especial Care

**Diabetes:** This disease calls forth the highest art of the dietitian. We recall that in diabetes there is a disturbance of the carbohydrate metabolism within the tissues, due to failure of the pancreatic islets of Langerhans to elaborate their internal secretion. Hence it becomes essential to control the carbohydrate intake. However, it is not the carbohydrate imbalance that threatens the life of the patient, but the dreaded acidosis resulting from imperfect fat metabolism which gives rise to the accumulation of the various acetone bodies within the tissues. Hence fat intake must be controlled and protein must also be controlled because in their catabolism they give rise to fatty acid and glucose radicals. Hence all of the three principle foodstuffs must be restricted and balanced. The guiding principle here is that "fats burn in the flame of carbohydrates but in their absence they smoke." The three foodstuffs are restricted to the basic requirement and are then balanced for their ketogenic-antiketogenic ratio, according to the formulas of Woodyatt.

**Scurvy:** Fortunately we see but little of scurvy as compared to a decade ago when it was of fairly frequent occurrence. The treatment of scurvy and its prophylaxis are so simple that this disease has almost been banished from this country by the routine feeding of orange juice to all growing children. Orange juice contains water soluble C vitamin. Water soluble C vitamin is a specific cure for scurvy. Likewise rickets is being eliminated as a clinical entity by the routine employment

of butter and cod-liver oil in the diets of growing children. These contain fat soluble D vitamin, which is a specific cure and prophylaxis against rickets. The specific relationship between diseases of the teeth and possible vitamin deficiencies has yet to be solved.

The latest disease which seems to have been analyzed as a vitamin deficiency disease and whose cure is effected by supplying the deficient vitamins, is pernicious anemia, heretofore defined as "a fatal form of anemia." This definition will probably have to be altered in all new editions of forthcoming textbooks in medicine. According to Murphy and Minot, and Koessler, pernicious anemia readily responds to treatment by diet when the diet contains a considerable amount of liver, which is known to contain fat soluble E vitamin, also wheat germ oil which likewise contains fat soluble E vitamin. Further, a liberal quantity of protein is supplied, as are also foods known to contain vitamins A, B, C and D. Whether pernicious anemia is due to a deficiency of vitamin E alone, as suggested by Murphy and Minot, or due to a deficiency of all the vitamins as suggested by Koessler, has yet to be learned.

#### Starch Free Bran in Half an Hour

A new method of cooking bran involves the use of a pressure cooker. As ordinarily used, little or no water is put with the food in a pressure cooker and at the end of the cooking the pressure is allowed to fall gradually, to preserve all the flavor and the nutritive value.

In preparing starch free bran exactly the reverse conditions must be observed. That is, a generous amount of water is used and when the cooking is finished the petcock is opened so as to release the pressure suddenly, thereby bursting the plant cells and washing the contents out into the boiling water.

For convenience in handling, the bran is tied in a large cheese cloth square of not too fine a mesh. This is put in the cooker and covered with water in the proportion of eight cups of water to one cup of bran. Cook at fifteen pounds pressure for fifteen minutes; then raise the pressure to twenty pounds, remove the cooker from the fire and open the petcock so that the pressure will fall rapidly. When it has reached zero open the cooker, remove the bag of bran and wash and knead it thoroughly for five minutes, under running water.

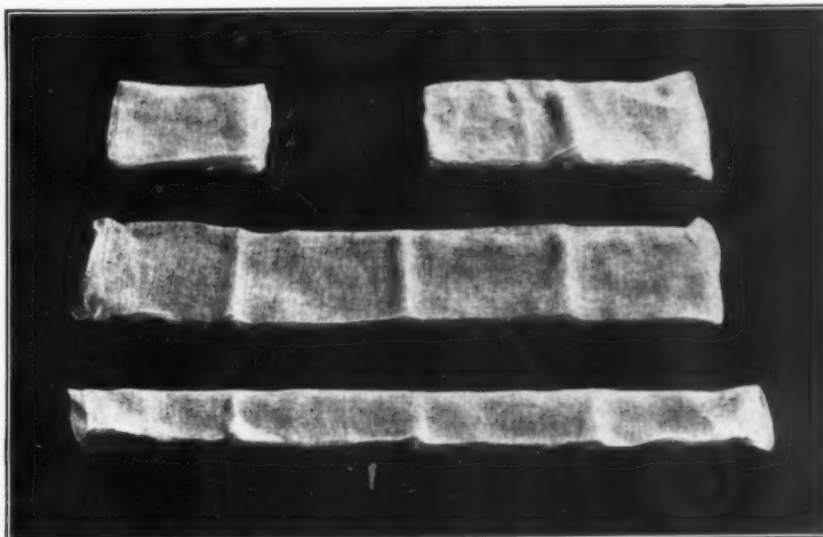
This will give a bran that shows no trace of starch when tested in the laboratory. The time required is about half an hour. The cost is less than three cents per pound, since ordinary feed store bran may be used.

#### Feeding the Sick

Sick people, to the dietitian, may include the acutely ill person who can take food only in the liquid form, the person who is apparently in good health except for physical depletion, lack of appetite or a disturbed digestion, or the patient whose digestive tract is unimpaired, but who must remain in bed after an operation while the wound heals, according to an article recently appearing in the *Hospital, Medical and Nursing World*. It is for these unfortunates that food must be made attractive, not only in taste, but in appearance.

Food, to be tasty and enticing, must be well cooked, and often in the cooking process, a food that the patient may not like, can be so changed that the patient will develop a liking for it.

# L E W I S



Showing four of the many forms in which the new 4"x4" Curity Surgical Sponge can be used to fit the individual preferences of your surgeons. No raw edges or threads can escape, no matter how it is used.

## CURITY PRODUCTS

Surgical Sponges  
Dressing Rolls  
Ready-Cut Gauze  
Gauze in Bolts  
Unbleached Muslin  
Bandages  
Ready-Cut Bandage Rolls  
Bandage Rolls  
Cotton  
Combination Rolls  
O. B. Pads  
Crinoline  
Sheet Wadding  
Ready-Cut Adhesive  
Zinc Oxide Adhesive  
(12" x 5 yds.)  
• • •  
Cellucotton Absorbent  
Wadding  
Ready-Cut Cellucotton  
Absorbent Wadding  
Kotex for Hospitals  
Celluwipes

**R** E A D Y to use—all raw edges safely turned in—absolutely uniform in size and fold—Curity Surgical Sponges express the Ready-Made Dressings idea to perfection. They save time, save gauze, contribute convenience and yet do not increase cost. In the new 3" x 3" and the familiar 4" x 4" sizes, Curity Surgical Sponges fit every sponge requirement. Write for samples or better still, send for a trial order. The modern way of assuring a full supply of dressings *at all times* is to buy Curity Ready-Made Dressings. The dressings supply should not be wholly dependent upon the leisure of the nursing staff.

### LEWIS MANUFACTURING CO.

*Specialists in Surgical Dressings Materials*

*Division of Kendall Mills, Inc.*

WALPOLE, MASS.

Lewis Manufacturing Co. of Canada, Ltd., 13 Victoria Square, Montreal, Quebec

Branch Offices: New York, Merchants Square Bldg., 40 Worth Street; Cleveland, 1155 Leader Bldg.; San Francisco, 843 Pacific Bldg.; St. Louis, 1338 Syndicate Trust Bldg.; Philadelphia, 21 So. 12th St.; Chicago, 30 No. La Salle Street.

**Curity** **READY-MADE DRESSINGS**

## OUT-PATIENT SERVICE

Conducted by MICHAEL M. DAVIS, Ph.D., Executive Secretary, Committee on Dispensary Development, United Hospital Fund of New York, 151 Fifth Avenue, New York  
A. K. HAYWOOD M.D., Superintendent, Montreal General Hospital, Montreal, Que

# A Health Center in a Hospital —A Community Experiment

By MARGARET LOVELL PLUMLEY

New York

"THE doctor told me to come here before I went home." It was a rather dreary-looking youngster speaking. His voice was hoarse and all too obviously one of the February gripe germs had him in its clutches.

The social worker in the friendly little office in the new out-patient department of St. Mark's Hospital finished a telephone conversation with a "Yes, Mrs. Picaro came in for a health examination this morning and brought the two children. We have referred her to the eye and dental clinics. You will have the report in a day or two." She signed a final letter presented by her secretary and turned to the boy. A few words about what the doctor had told him, an inquiry as to his name and address and who was at home to care for him, and she sent him off with the assurance that a Henry Street nurse would go to see him the next morning. A slip with his name and address on it was quickly dispatched to the Henry Street office, so conveniently adjacent.

"That's only a small incident," said the medical director who was showing me over the building, "but multiply that many times, consider the personal interest shown, and you will get an idea of one way in which cooperation helps."

St. Mark's Hospital on the corner of Second Avenue and Eleventh Street, New York, is directly across the street from quaint St. Mark's-in-the-Bouwerie, on the site of the chapel built by Governor Stuyvesant for the little Dutch settlement that had sprung up around his farm. But that region ceased to be rural years ago and today is one of the most thickly populated areas in the world. It is (to quote a bulletin of St. Mark's school of nursing) a cross section of the peoples of all countries and offers a fertile field for public health and hospital service.

With this in mind, the hospital management requested the head of the Henry Street Visiting Nurse Service to work out with them a plan for the coordination of the hospital, the clinic, the social service, and the visiting nurse service. A joint advisory committee was appointed, consisting of the director of the Henry Street Nursing Service, the educational director from the central office, a member of the Henry Street lay committee, and the

nurse in charge of the office of the Henry Street district in which the hospital is located, as representatives of Henry Street; the director of the hospital, the head of the social service and a member of the hospital social service committee, as representatives of the hospital, and the director of social service at Presbyterian Hospital as a representative of an outside agency.

This committee planned developments of the service and directed its policy. It decided that Henry Street center should so far as possible carry on the work of any regular Henry Street district but that it should also work closely with the hospital. Funds were contributed especially to build the part of the new building used by the center, and St. Mark's agreed to pay \$3 per session for each nurse working in the clinic. The first nursing visit made on any client referred by the hospital was to be paid for at the usual rate, \$1.15 a visit. After that Henry Street, if it decided to carry the case, would do so in accordance with its usual policy.

### Cheerful Rooms Are Assigned

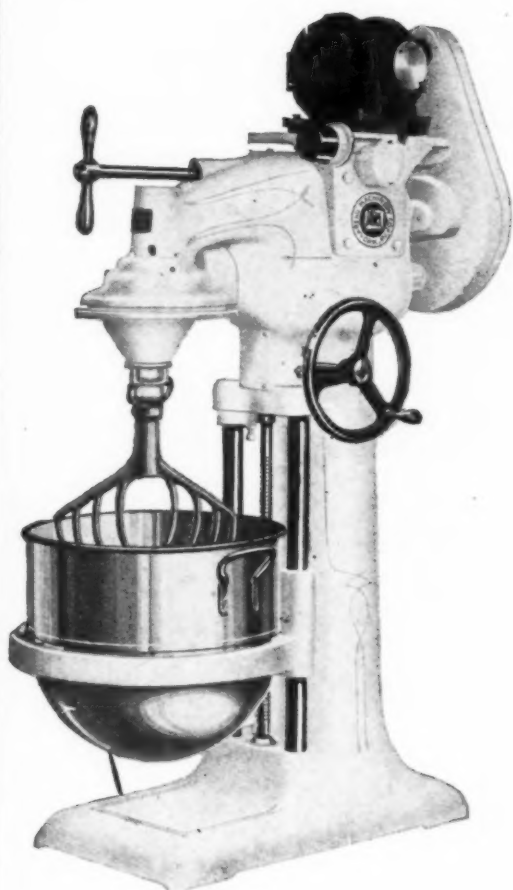
To make cooperation between the out-patient department, the social service department and the nursing service physically easy, rooms for the Henry Street center were assigned, opening out of the main hall of the out-patient department, with a swinging door into the social service department, so that the social service worker could say with real truth, "It is impossible to tell where social service ends and Henry Street begins." The main room occupied by the center is on the front of the building which faces south. This insures all the sunshine New York can provide. Cheery yellow walls, green furniture and attractive posters give the room a friendly appearance. One must feel healthier just to go there. In this room the nurses do their office work; it is also used for health classes and other meetings. Opening out of it are a rest room, a small service room, where simple food can be prepared for use at mother's meetings, and a conference room.

The service started with a supervisor in charge and four other nurses. By the end of a year this number had been increased to ten. Three of these nurses are assigned to clinic work (with three others always in

# READ *THREE SPEED* MIXERS

THE ORIGINAL THREE-SPEED MACHINE

*Should be a part of every*  
**HOSPITAL KITCHEN**



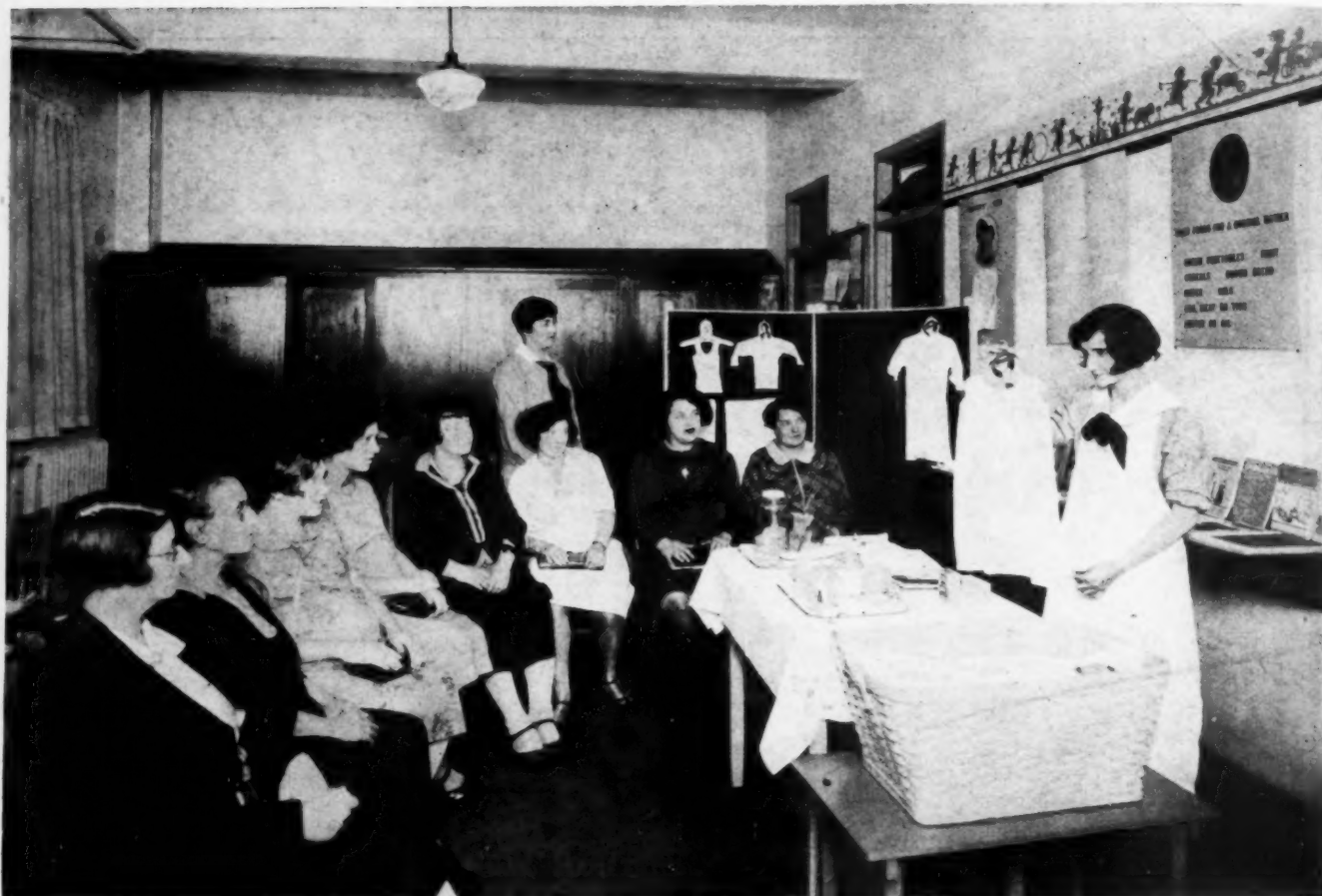
*Promotes Cleanliness*  
*Reduces Labor*  
*Increases Efficiency*  
*and*  
*Produces a Better*  
*Product*

*Read 3-Speed Mixers*  
*can be equipped with Monel Metal*  
*Bowls and Beaters*

WRITE FOR  
A CATALOG

**READ MACHINERY CO.**  
**YORK, PA.**





*Henry Street expectant mothers' club held in connection with St. Mark's Hospital prenatal clinic.*

training as substitutes); the others carry on the regular work of any Henry Street office. At the end of six months they rotate, the substitutes taking up the clinic service. The nurses who work in the clinics also do the follow-up for these clinics. This is advantageous to the nurses because they gain experience in both the clinic and the field, and to the patients because they see the same nurse both in the clinic and at home and come to feel that she has a personal interest in them.

The center cooperates with the hospital through clinic service, instruction to maternity patients and home visiting.

Home visits on hospital or clinic patients are made only at the request of the social service department. This department acts, in fact, as a liaison office between the hospital, the out-patient department and the Henry Street center.

To keep the work done by Henry Street in connection with St. Mark's definitely within public health policy, the committee decided that the nurses should work only in clinics in which the emphasis is on preventive rather than curative work. Accordingly the prenatal and the health and diagnostic clinics (together called the health guidance service) were selected for the experiment. The center also gives nursing service to patients from the hospital or out-patient department, makes a routine nursing visit on every patient discharged from the maternity ward who desires the service, instructs new mothers before they leave the hospital, conducts clubs for expectant mothers and mothers of preschool children, and holds a health class once a month on Saturday mornings for children. The following paragraphs describe in detail the joint services.

To the health guidance clinic come clients referred by

social agencies, sometimes a whole family, sometimes just one child or a father, long out of work, who, the social worker thinks, needs clinic care to put him on his feet. Examinations are made by appointment and the doctors have been especially trained and are paid for their services.

Two Henry Street nurses assist in this clinic, held four times weekly. The nurses take the histories, jot down the doctor's notes, and assist him in the examination. It is no perfunctory performance. Fifteen minutes to half an hour is spent on each patient. Both the nurses and the doctors know how to gain the confidence of children, and treat adults with consideration and understanding.

The health guidance service is subdivided into the "diagnostic clinic" and the "health examination clinic." To which division the patient is assigned depends upon his condition. If he has special complaints or if definite signs of disease are found, he is considered a diagnostic clinic patient; if, on the other hand, he has no ailments and only minor defects are found, he belongs in the health examination division.

Practically all the patients are referred by outside agencies. Examinations are made by appointment. Nearly 50 per cent of the appointments are broken. From eight to fifteen patients are seen at each session. After the examination, the nurse completes the record, attaching to it all refers to other clinics, and sends it to the social service department, which makes the report to the agency responsible for the case. If the social worker from the agency wishes to talk to the doctor who examined her client, this is arranged by the St. Mark's social worker.

The hospital is always willing to give information to

*A supper tray for  
the men's ward*

Individual veal and pork pie topped  
with baking powder biscuit. Baked  
potatoes. And for tartness and  
flavor—several slices of Libby's  
Sweet Sliced Dill Pickles

*For the reducing diet*

A salad of sliced tomatoes and  
cottage cheese, garnished with  
Libby's Sweet Mixed Pickles

*For appetizing flavor*

Try Libby's Sweet Pickles with  
these foods: Egg and Celery Salad,  
Fish Salad, Kidney Bean Salad,  
Russian Dressing, Tartar Sauce

*A plate luncheon for  
the nurses*

Macaroni and Cheese, Green Beans,  
Libby's Sweet Sliced Dill Pickles



# To whet *dull* appetites in the Men's Ward

*Crisp, spicy pickles lend  
the supper tray new interest*

How they liven up dull appetites—these tart, piquant foods that stimulate digestive flow! And what a special craving there is for them in the Men's Ward where fractures and broken bones rather than functional disorders predominate.

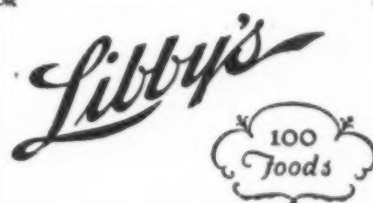
Knowing that a few slices of pickle will satisfy the desire for tartness just as well as the more expensive salad, many hospitals are adding them to their supper trays. For this purpose one particular kind of pickle, Libby's Sweet Sliced Dills, enjoys special favor with dietitians. For they know that the spicy, tempting flavor of these pickles is sure to awaken desire for food.



Made of crisp, meaty cucumbers, specially grown for Libby in tested soil, these pickles have a rare, enticing goodness. All the appetizing tang of old-fashioned dill, blended with fine spices, pure sugar and crystal vinegar flavors their crunchy slices.

The same fine flavor that makes Libby's Sweet Sliced Dill Pickles so popular in hospitals is to be found in all of Libby's 100 Foods. More than 50 model kitchens have been built by Libby in favored garden spots so the world's choice foods may reach you fresh and full-flavored. Try some of the Libby Foods listed here. Ask your jobber about them today and put in your order.

**Libby, McNeill & Libby**  
Dept. N-11, Welfare Bldg.  
Chicago



*These Libby Foods of finest flavor  
now are packed in special sizes  
for institutions:*

Hawaiian Pineapple  
California Asparagus  
California Fruits  
Spinach, Kraut  
Jams, Jellies  
Santa Clara Prunes in Syrup  
Blackberries  
Loganberries  
Red Raspberries  
Tomato Purée  
Pork and Beans  
Olives  
Pickles, Mustard  
Bouillon Cubes  
Beef Extract  
Catchup, Chili Sauce  
Salmon  
Evaporated Milk  
Mince Meat  
Boneless Chicken

the outside agencies and to cooperate with them, when specific requests are made. The agencies, on the other hand, appreciate this attitude on the hospital's part and pay for x-rays and other special fees when necessary. The clinic keeps a clinic file of cases with name, address, and date examined, filed according to reexamination date. Histories and other information about the patients are also filed in the clinic, and the nurse in charge is responsible for filing these.

In most cases the agency who has sent in the case is expected to do the follow-up necessary to bring the patient back to the clinic, but sometimes the Henry Street nurses are asked to do this. They then transfer all the data given in the clinic about the patient to Henry Street cards, so that they have a complete history of all the St. Mark's cases they are carrying, just as they have for their outside cases.

### Follow-up Work Done

Follow-up letters are sent by the social service department to the agencies at the end of three months, to tell them what their clients have been doing. All clients are called back for a report at the end of six months. If the agencies do not return their cases, the social service department communicates with the worker who sent in the patient. The disposition of the Henry Street cases is left to the discretion of the nurse, after conference with her supervisor.

The story of an old man who had been examined in the health clinic, brought back for refers, and followed up for reexamination illustrates how effective this follow-up may be. He had suffered from rheumatism and been out of work off and on for long periods. A session in the health clinic brought to light several causes responsible for this condition; proper treatment cured him. He told the nurse when the time came for reexamination that he was so well he did not need to return, and then said, "My friends laugh at me and tell me that that nurse certainly must have a case on me, she comes after me so often." But I tell them, "Yes, she does come after me and I've gone to the clinic more times this year than ever before in my life but, say, it's the first time in years I haven't missed a day from work because of sickness." Attendance at the clinic had paid and that old man and his friends had learned a valuable lesson in preventive medicine.

During the past year children and adults have been examined at the same sessions but an effort is being made to separate them as mothers cannot be satisfactorily examined when their children are about.

Henry Street and the out-patient department of the hospital cooperate still more strikingly in the prenatal clinic. This is held once a week. The Henry Street nurse has a separate room to do urinalysis and take temperatures and confer with the patient about her health and habits. The doctor makes out the record and two students assist with the examination. After the doctor has finished with the patient, she has a second session with the nurse. This gives the nurse a chance to see that she has understood what was told her and to invite her to the mothers' club, which is held in the Henry Street office every Thursday afternoon. The nurse who works in the prenatal clinic is in charge of the mothers' club. Routine home visits are made on all clinic cases and reports are sent to the Henry Street nurse in charge of the prenatal clinic.

Expectant mothers who attend the prenatal clinic and others who are under the care of Henry Street in the district are invited to belong to this club. The women

begin to arrive shortly after one o'clock, and each one has a personal interview with the nurse in charge. A urinalysis is made, temperatures, pulse and blood pressure are taken, the significance of symptoms is explained, and the mothers are told how to regulate their diet and their habits of living so as to keep themselves in good condition.

After the nursing visits are completed, the mothers gather in a half circle and the nurse talks to them. The talks take up such subjects as what sorts of food to eat; how much exercise to take; sleep and rest; planning of the layette, with proper clothing for the baby shown; how to care for the baby, and other topics that could be helpful to them. Charts are prepared which illustrate the subjects taken up. There is free discussion, the mothers telling what their friends have advised and sometimes disagreeing with the suggestions made. There is vitality in these meetings, warmth and reality. Here concrete health guidance is sympathetically given at a time when it is essential and most appreciated.

After the talk there are refreshments. It becomes a real party. One can well believe that mothers go home from these meetings refreshed and invigorated; that they look forward to them from week to week and put into practice the information gained there.

St. Mark's has a large number of maternity cases and the hospital has taken pride in furnishing the birth rooms with the most modern equipment for helping the patients. The wards have tinted walls and colored hangings. The identification system for the babies is complete and fool-proof. A keen personal interest is taken in each mother and her baby. This is illustrated by the plan of having all mothers go down to the Henry Street office the day before they leave the hospital for instruction about taking care of their babies. The nurse in charge shows them a simple basket fitted out for the baby to sleep in, and the proper clothes for the first months of life. They are told how to wash the baby and shown the easiest way to do it, the kind of soap to use and the best way to keep the baby's things together. The nurse tells them about the value of fresh air, of loose clothing, of as little clothing as possible during the warm months, so that the baby's body can be exposed to the direct rays of the sun. During this instruction, as in the mothers' club, the nurse treats the mothers as friends. They ask questions freely, criticize the methods suggested when they do not agree with them, and describe their favorite procedures or those of their friends. The nurse handles their questions and comments tactfully, presenting her ideas not as regulations but rather as new ways which other mothers have found effective and which they might enjoy trying. Babies in this district are likely to grow up stronger, healthier children because St. Mark's and Henry Street are cooperating in teaching the mothers.

### Visits Are Paid in the Homes

All ward cases are urged to keep in touch with their own doctors, or with the local milk station. Nursing visits are also paid to them in the homes by the Henry Street nurse shortly after their return, and weekly visits are made until the baby is a month old. The first visit is made at the request of the hospital and is paid for by the hospital. Semiprivate cases and private cases are invited to this mothers' conference and such cases can be followed at home by the Henry Street nurses if they request it. This is possible even when they live outside the district, as the Henry Street office at St. Mark's will arrange to have a nurse from the district in which the mother lives visit her if she desires it.



**A**N official of a large eastern orphanage says: "The Johnson System Of Temperature And Humidity Control for hospitals does everything claimed for it. Hundreds of thermostats in the various wings of our group of buildings are doing their work today as well as when installed—(twenty-eight years ago). They automatically shut off the steam from the radiators at the desired temperature and there is no exaggeration in saying they do so with a variation of not more than one degree. There is no mechanism about a large building that requires so little attention. The advantages are many and self-evident. Eliminates heat waste absolutely. Not a cubic inch of steam is used beyond what is needed for the temperature desired. This means a wonderful saving in fuel. Other benefits from having the same temperature in all parts of the building, automatically managed, are remarkable."

**JOHNSON SERVICE COMPANY**  
MILWAUKEE, WISCONSIN

Albany	Cincinnati	Greensboro, N. C.	Philadelphia	Seattle
Atlanta	Cleveland	Indianapolis	Pittsburgh	Calgary, Alta.
Baltimore	Dallas	Kansas City	Portland	Montreal, Que.
Boston	Denver	Los Angeles	St. Louis	Winnipeg, Man.
Buffalo	Des Moines	Minneapolis	Salt Lake City	Toronto, Ont.
Chicago	Detroit	New York	San Francisco	Vancouver, B. C.

AUTOMATIC TEMPERATURE REGULATION SINCE 1885

The out-patient department and the Henry Street nurses combine to furnish children for the health class held once a month on Saturday in the Henry Street office. Sometimes it is a boy who has been examined in the health clinic and who is underweight and needs instruction in diet and health habits. Sometimes it may be a youngster whom the nurse has come across in the home she has visited. A girl whose mother is too busy with the other children or with housework carried on after long hours at the store or the factory, to notice that the child needs longer hours of sleep and heartier breakfasts. The children who come to the class are weighed and measured and given health instruction. A record is kept of their weights and they follow it eagerly.

The head social worker at St. Mark's is a former Henry Street nurse who has also had experience in social work. The registrar, too, has had Henry Street experience. This means complete understanding and cooperation between the two divisions. Patients registering at the admission desk who are unable to pay are referred to the social worker. If she finds health conditions at home need attention, she may ask the Henry Street nurse to make a visit.

### How Cases Are Referred

Cases are always referred to the Henry Street office through the social service department. Sometimes these cases are reported by the doctors in the wards, sometimes by the nurse in charge of the out-patient department, sometimes by the Henry Street nurses working in the clinics, and sometimes by the registrar. Often, of course, the social workers themselves discover the need for home visiting and communicate directly with Henry Street. The head of the social service department and the supervisor in charge of the Henry Street center work very closely together and lines of authority are not strictly drawn.

Increasingly, agencies engaged in curative and preventive work are recognizing the value of pooling their resources in their fights against disease. A recent report by a committee of the American Public Health Association, on the relations between hospitals and health departments, a condensation of which appeared in the February, 1928, issue of this magazine, brings out the extent to which public and private agencies are working together to correlate their health programs. Health departments and hospitals have combined in maintaining baby clinics and tuberculosis clinics, in utilizing joint laboratory services and sometimes in the support of public health nursing. "This type of cooperation should be extended," said Dr. John M. Bresnahan, director, St. Mark's Hospital, who courteously made it possible for me to obtain a first-hand knowledge of the St. Mark's undertaking, "until a hospital is able to serve the patient, and through him the community, not only when illness overtakes him but by advice and assistance in the important job of keeping well."

This presents an example of what a hospital can do in developing contact with patients both within the institution and in the community. When service is rendered in the hospital proper—in the wards, on the operating table or in the birth rooms—patients, both those in the wards and those in private rooms, should be provided with trained medical and nursing skill, up-to-date equipment and comfortable, pleasant surroundings. When the patient needs attention in the ambulatory stage, the out-patient department will treat him. If he is confined to his home, he may call upon the services of the visiting nurse association. To train him in prevention there

should be health guidance clinics, and to aid mothers, prenatal clinics, while classes and clubs conducted by a health center can teach the patients to carry out suggestions made in the clinics and give them valuable health instructions. Only when every department in a hospital and all the agencies outside are cooperating and developing their services jointly for the benefit of the community, will health work attain the position of power and influence in modern life that it deserves.

## Use the Out-Patient Department in Training Interns

Although a hospital period of training has come to be recognized as an essential part of medical preparation and some states even require an internship for licensure to practice, some educators and physicians still think that the educational phase of hospital and out-patient training combined could be more fully developed. The greater use of internships has been one of the most important factors in the improvement of medical training.

In a hospital organized for the best possible care of its patients, usually for serious and emergency illness and surgery, there will be a high degree of subdivision of labor and a large number of special technical services and personnel. These conditions often prove a handicap to the intern, for here he is brought into contact with the fine, highly technical points of the profession, the work for which he is not yet ripe, and while pondering over these advanced questions he will neglect to absorb thoroughly the more basic details upon which his future depends. Because of the existence of these conditions in the hospital proper, it has been suggested that the instruction of interns, in certain phases of the work, might prove more profitable if carried on in the out-patient department.

This is the partial substance of a report of the Commission on Medical Education, which appeared in a recent issue of the *New England Journal of Medicine*.

## Nurse Training Schools Increase

From information presented in a recent issue of the *Journal of the American Medical Association*, it is learned that the number of nurse training schools in this country has increased materially, while the number of hospitals without nurse training schools decreased from 5,261 in 1926 to 4,521 in 1927. The greatest increase was shown in New York State, and there is no increase in seven states. Nevada still has no training schools, and New Mexico has added one, making a total of three. Pennsylvania, ranking first has a total of 194 training schools. New York, having added eighteen, holds second place with a total of 179 schools; Illinois, with a total of 152 schools, five of which have been added in the last year, is in third place, and Massachusetts comes fourth, with a total of 125 schools, thirteen of which have been started within the last year.

From data provided by the state boards of nurse examiners and by the hospitals themselves, it is found that the number of training schools in hospitals that are considered as unethical and as unsafe places for the care of the sick, has increased from thirty-eight in 1926 to forty-eight in 1927. There is, however, a decrease in the number of such training schools approved by the state boards of nursing examiners.



## Why this Emergency Lighting suits any Hospital

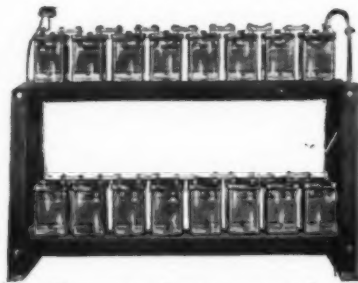


Illustration showing a typical Exide storage battery installation for emergency lighting.

# Exide

**BATTERIES**

*An Exide Emergency Lighting Battery is flexible—your needs govern its size*

**H**OSPITAL needs vary. One hospital uses more supplies than another. One hospital needs more lighting protection than another. Exide Emergency Lighting Batteries meet these varying needs.

And with the individual hospital, Exide Emergency Lighting Batteries are available in a wide range of sizes to meet specific requirements.

**Protection against sudden darkness . . .** Most important of all is the reliability of an Exide Emergency Lighting Battery no matter how many rooms it protects. You are protected against sudden darkness which could throw your organization into disorder—bring delay to the operating room at a time when every second is vital.

**Automatic operation . . .** With an

Exide Emergency Lighting Battery there is no apparent lapse of light—no fumbling or uncertainty—no waiting for a switch to be thrown. If the main power fails, the lights are kept burning by the current from the dependable Exide Battery. This happens instantly—**automatically**.

**Simplicity . . .** When the power source is the dependable Exide Battery, emergency lighting is extremely simple. There is no complicated mechanism to get out of order—the devices required for controlling the battery and keeping it charged are so simple that an electrician is not needed to look after it.

**A service for hospital directors . . .** An experienced representative will be glad to consult with you. He can be of real help in planning an emergency lighting system for your hospital. He can furnish exact estimates. This entails no obligation. Any hospital director can avail himself of this service. Just write us.

THE ELECTRIC STORAGE BATTERY COMPANY, Philadelphia

*Exide Batteries of Canada, Limited, Toronto*

## HOSPITAL EQUIPMENT AND OPERATION

With Special Reference to Laundry, Kitchen and Housekeeping Problems

Conducted by C. W. MUNGER, M.D., Director,  
Grasslands Hospital, Valhalla, N. Y.

# Pure Air—What It Is and How to Get It

THE University of Michigan Hospital, Ann Arbor, Mich., which is well known for its care in maintaining a high standard of cleanliness, has found that the forced system of heating and ventilating which has been installed there has proved successful as well as economical. The eleven operating rooms on the top floor of the hospital are provided with practically dust-free air, at a cost of two cents a day for each room. Pure air is necessary in an operating room, and in order to obtain this, the bacteria-laden dust must be removed.

Although the system of forced heating and ventilation was installed in 1924, so pure has been the air which passed through the ventilating ducts, that the inner sides of the grilles in the walls are still free from any accumulation of dust. Thus, where the ordinary ventilator usually has a collection of dust, dirt and grease around the grilles, necessitating frequent cleaning, the new system does away with this unsightly detail.

Purification of the air is accomplished by means of air filters installed in the ventilating ducts. The filters are so arranged as to present to the air passing through, a number of baffles coated with a viscous substance. Dust

particles cling to these surfaces and in turn become impregnated so that they act as collecting surfaces. In this way a large coated area is presented to the onrushing dust particles, yet the baffles are placed far enough apart to prevent clogging with dust.

The entire installation consists of a bank of eight unit filters, twenty inches square, with one blank frame and cover. The total capacity of the seven active filters is 5,600 cubic feet per minute. The units are installed on the roof, 110 feet above the ground, so the air when it enters is comparatively pure. The air is forced through the filters by means of a fan, twenty-four inches in diameter and fourteen inches wide, driven by a five horse power motor. The ducts through which the air is conveyed are twelve inches square, and are equipped with a series of tempering coils which keep the air heated to a temperature of about 80 degrees.

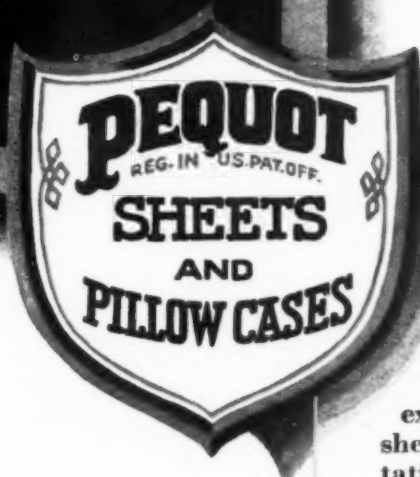
The simplicity of the device is one of its main attractions. There are no moving parts to get out of order. In the cleaning process it is only necessary to remove, clean and recoat the baffles with a viscous substance. This requires the service of one man for half an hour, and one



Operating room, University of Michigan Hospital, Ann Arbor, Mich.

for  
exquisite  
feel

BHD



*So soft . . . so smooth . . .*  
that fingers can't help  
touching it — that is the  
exquisite *feel* of a Pequot  
sheet! Such a sheet is an invitation  
to relax — to slip into  
restful sleep.

Yet you feel *more* than luxury  
in a Pequot. Its firm, even  
texture speaks instantly of  
strength, long wear, and  
sound economy.

Pequot is America's most  
popular sheet.

Naumkeag Steam Cotton Co.,  
Salem, Mass. . . . Selling Agents:  
Parker, Wilder & Co., New York,  
Chicago, San Francisco, Boston.

## We Do Laboratory Work for Physicians and Hospitals

Hospitals must have an adequate clinical laboratory service in order to be within the minimum standard for approved hospitals.

This "requires that facilities be available within the hospital for the ordinarily required examinations of urine, blood, sputum, smears, and spinal fluid cell counts. The more elaborate histopathologic, bacteriologic, bio-chemic, and serologic examinations may be performed outside of the hospital. If this work is arranged for with a so-called commercial laboratory, such laboratory shall be one approved by the Council on Medical Education and Hospitals of the American Medical Association."—*American College of Surgeons, Hospital Standardization report for the year 1927, p. 16.*

The National Pathological Laboratories have been rendering a type of laboratory service which is both satisfactory from the economic as well as the scientific side to a large number of hospitals for several years.

The National Pathological Laboratories are approved by the Council on Medical Education and Hospitals of the American Medical Association and by other approving and standardizing bodies.

We do all worth while laboratory examinations including—

*Tissue diagnosis*  
*The Wassermann and Kahn Tests*  
*Blood chemistry*  
*Bacteriology and Clinical Pathology*

**WRITE** to us for advice  
and consultation concern-  
ing your laboratory problems.

### NATIONAL PATHOLOGICAL LABORATORIES, Inc.

CHICAGO: 5 S. Wabash Ave.  
ST. LOUIS: University Club Bldg.  
DETROIT: 312 David Whitney Bldg.  
SAGINAW: 302 S. Jefferson St.

cell is cleaned each week. The viscous preparation is a preservative for the metal and prevents it from rust and deterioration.

Maintenance consists of the cleaning labor, the cost of the viscous substance used and the cost of the hot water used in cleaning the cells. The power charge shown below is for that portion of fan power which is used in overcoming the resistance of the cells used. This has been determined as 0.46 kilowatts. The fan is in operation every week day from 7 a. m. to 5 p. m. The total annual operating time is approximately 300 days and the annual power cost at \$0.005 per kilowatt hour is \$6.90.

The total of all cost items is \$63.50 per year. From this the filtering costs are determined as \$0.03 per 1,000 c.f.m. a day, and \$0.019 per operating room per day.

Too much emphasis cannot be laid on the importance of the heating and ventilating system for modern operating rooms. An adequate supply of fresh, clean air is essential for proper work, and the solving of this problem is an important factor as a safeguard to health in places of public interest. In comparing the benefits of its use, the cost of operating a filter system of this type is a minor consideration. The savings in cleaning and redecorating costs in a building of this type will repay the cost of the equipment. The other less tangible benefits, such as better conditions for successful work in an operating room, are of even greater importance.

## Making Entrances Attractive

By MRS. MABEL TERWILLIGER

Supervising Housekeeper, Grasslands Hospital,  
Valhalla, N. Y.

Neatness and cleanliness of hospital entrances, lobbies and public rooms are almost as important as proper cleaning of wards or operating rooms. Visitors' first impressions are likely to be lasting ones.

It has been found convenient at Grasslands Hospital, Valhalla, N. Y., to do the major part of the cleaning of offices and public rooms at night. A porter assigned to this duty begins work at 6:45 p.m. He starts by cleaning the front porch and entrance and looks after all of the offices in the administration section, most of which are unoccupied in the evening. He also does the cleaning in the lobby, reception room, men's lavatory, and in the corridors adjacent to the administration section of the building.

Vacuum cleaner is used on rugs as often as necessary. The floors of both corridors and rooms are covered with battleship linoleum, and spots are removed from the linoleum with lukewarm water and linoleum soap, applied with a soft cloth. If the stains do not disappear by the use of the above application, a special linoleum cleaner is used and has been found satisfactory. Furniture oil is applied lightly to doors and windowsills and is rubbed dry with a woolen cloth three times each week. Furniture is dusted daily.

Windowpanes are washed as often as is necessary and practicable. A solution of warm water containing one ounce of ammonia to each pail of water is satisfactory. During extremely cold weather a nonabrasive window cleaning compound is added. The linoleum in the corridors and the lobby is rewaxed each week by means of an electric machine. Waxing is not done by the night porter, but is delegated to a regular crew which covers the entire institution. It is found that waxing once in six weeks is sufficient for the floors of offices and similar rooms.

# When mothers ask you which soap is best for baby's skin . .

**Y**OU have been advising Castile because of its reputation for purity and mildness.

But for years much uncertainty has attended the buying of Castile due to the many imitations on the market, many of which are made from inferior, even harmful materials.

Now there is Castolay, made by the Andrew Jergens Company, long famous for fine soap. Castolay combines all the purity of the finest Castile with the most modern soap-making methods and controls unknown to soap-making fifty years ago. It comes in a handy, hard-milled cake. Its



*Doctors and nurses are recommending this finely made soap for the delicate skin of babies*

quality never varies. Unlike Castile, it cannot be imitated.

Try Castolay yourself. See how rich its full lather, how easily rinsed, how gently it cleans without drying the skin. You can safely advise Castolay for babies.

Castolay can be furnished direct to hospitals in several convenient and economical sizes. At your request, our representative will demonstrate for you this improved hospital soap.

If you prefer to try it yourself, we will gladly send you a full-size professional cake. Address: Hospital Division, The Andrew Jergens Company, Cincinnati, Ohio.

*Castolay cannot be imitated in cheap materials. Its superior quality never varies*

# CASTOLAY

FINER THAN THE FINEST CASTILE

Summer Days.....

Not far  
Away...

Hot..

Dry..

Thirsty..

Limited Diet

Miserable...

Time to serve

SUGAR FREE

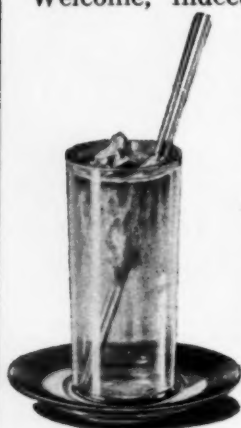
CELLU Beverages!

(Root Beer—Ginger Ale—Wild Cherry)



**M**ADE with pure sugar-free flavors, saccharine and carbonated water, sparkling, all the zest and delightfully refreshing qualities of standard carbonated beverages—minus only the sugar content.

Welcome, indeed, wherever a restricted diet has barred the usual, sugared drinks. Safe, considerate, readily appreciated.



This is a memorandum to our old customers to renew their supply of Cellu Beverages, and an invitation to new friends to write for Special Hospital Price List and Free Sample. Coupon below for your convenience.

#### Save This Recipe

$\frac{3}{4}$  glass Cellu Root Beer      Saccharine to sweeten  
 $\frac{1}{2}$  cup 30% Cream (whipped)      Crushed Ice

Combine ingredients and serve immediately. Note: A beaten white of egg may be combined with the Root Beer in place of the whipped cream to give another pleasing drink.

Food value of drink is food value of cream used.

### Chicago Dietetic Supply House

1750 West Van Buren Street      Chicago, Illinois

Gentlemen: Please send me

- ☐ Your Special Hospital Price List.  
☐ Free Sample Cellu Ginger Ale.

Name .....

Address .....

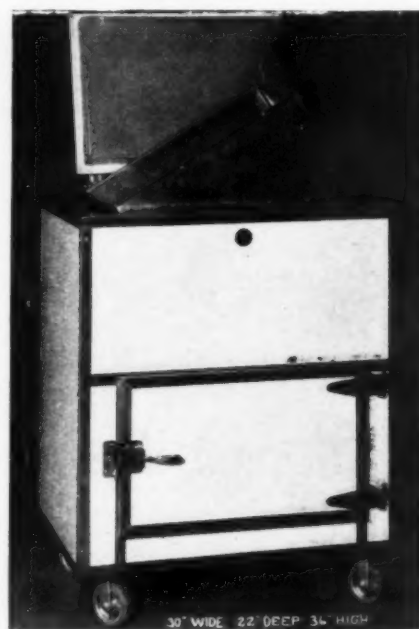
City ..... State .....

The corridors, the lobby, and the porch are again swept at 6:45 a.m. The porch is mopped at 9:45 a.m. by the day force, and the lobby and corridors are swept, a sweeping compound being used. The linoleum is polished once a day by a weighted board covered by an old woolen blanket and fitted with a handle. The sweeping is again repeated at 1 p.m. and at 4 p.m. Some parts of the woodwork are washed daily with a soft soap made from soap chips, soda and a nonabrasive powder.

The cleaning of offices at night has been a source of satisfaction to the occupants of the offices, as well as to the housekeeping department. It has been helpful to have a night porter on duty in the administration section, because of emergency cleaning needs in the admitting department and elsewhere for which work he is on call. For the porch, lobby, corridors and public rooms, however, the night cleaning alone is not sufficient. As noted above, these parts of the building are also covered by day workers who must be constantly on their rounds in order to keep the entrance presentable.

### New Rolling Refrigerator for Hospitals

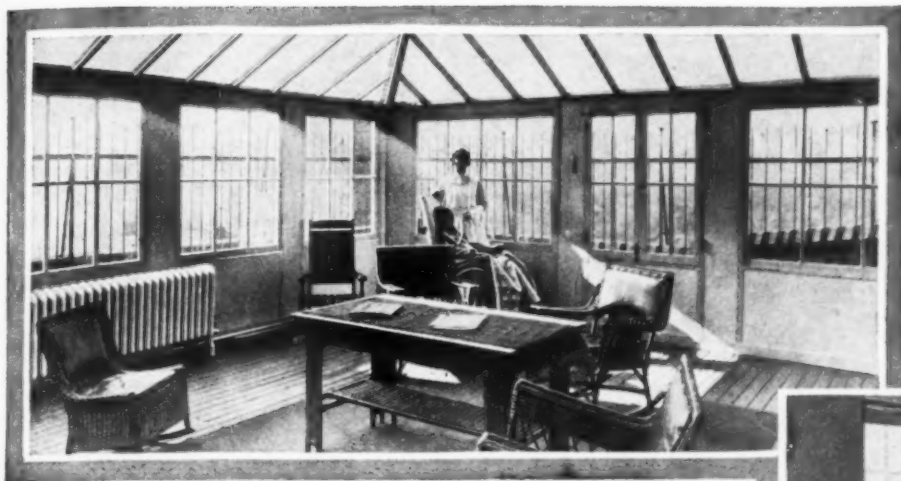
A combination cracked ice and medical cabinet has recently been placed on the market. The cabinet comes mounted on special ball bearing hospital casters, or can be mounted on a terrazzo base, as desired. It is efficient, durable and economical in operation, and it serves a double purpose as the cracked ice compartment, in the top of the cabinet, serves to refrigerate the medical cabinet in the lower portion. If installed as a permanent fixture,



the cabinet can be equipped with either mechanical or electrical refrigeration.

With the removable cracked ice container in the top, which eliminates the necessity of a drain, the cabinet is said to maintain an average temperature of forty degrees F., which is most practical for the purpose intended. The height of the refrigerator, with the lift door at the top, is convenient for efficient use. Ice caps are easily filled, and the ice container can be removed without stooping down.

Special scientific circulation, insulation and construction make ice meltage a slow process.



*Hospitals and health institutions—over 100 of them—every day realize the great value of Vita Glass. It is no longer an experiment but the modern way to disease prevention and health restoration.*



# Let your WINDOWS Bring in Health!

*New window glass advances the cause of health . . . in hospitals, especially, it speeds convalescence . . . gives new way to treat and care all year round. Coupon brings full facts . . .*

**A** HOSPITAL is a paradox . . . It is a healthful place . . . full of people who are not healthy.

The modern hospital's problem is not only to give patients this health, but to give it quickly. Here is a new way to help you do it:

Install Vita Glass in your windows! Let Vitaglass panes bring back health to patients!

For Vita Glass brings the healthful ultra-violet rays inside your hospital—all day long, summer and winter. It makes every window in your institution an aid to convalescence. It is a means of restoring abundant health. Vita Glass hastens recovery . . . gives the hospital one more advantage in treatment of disease.

Over 100 hospitals all over the country have installed Vita Glass. They know its value to indoor heliotherapeutic treatment and patient turnover. They know that treatment under Vita Glass

increased metabolism *without any other medication*. Now you can do the same.

All these advantages you can now give your patients. This remarkable window glass—Vita Glass—makes it possible.

## *What Vita Glass is and does*

Vita Glass looks like ordinary glass. It has all the properties of such glass. *But*—it permits the passage indoors of the life-giving ultra-violet light rays.

Thus has ended the search of years for an inexpensive window glass for the hospital that would bring inside its walls the main source of life, health and energy.

Vita Glass can be used in your hospital wherever ordinary window glass is now used. It costs but little more and is handled and installed in the same way as ordinary glass.

Successful tests have been

conducted by the council on Physical Therapy of the A. M. A., and by eminent physicists and scientists everywhere. But even more conclusive evidence can be found in the day-in, day-out use of this glass in hospitals.

## *Forms of Vita Glass*

Vita Glass comes in four forms: *Clear*—for windows, sun-porches or wherever clear full vision is required. *Cathedral*—for privacy. *Opaque*. Skylights, bath-rooms, sunbath rooms. *Cathedral Wire*—for use wherever building regulations require wire glass. *Plate*—for large window spaces.

## *Write for free information*

We have prepared literature telling the full facts about Vita Glass, with particular attention paid to its use in hospitals. We should be glad to send you this data, that you may study and evaluate this new health producer. Write today. The coupon makes it easy. Address Vitaglass Corporation, Dept. L-5, 50 East 42d Street, New York City.

VITAGLASS CORPORATION,  
50 East 42d St., N. Y. C.

L-5

Please send me full information on Vita Glass. I am primarily interested in its use in hospitals. I am placed under no obligation by this request.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

# VITA GLASS



## Face to Face With Pain

Clamoring insistently for relief,

Think of PERALGA.

Closely approaches the narcotics in desired effect,

—yet non-narcotic and non-habit forming.

Acts splendidly in sleeplessness due to pain,

—yet itself not a hypnotic.

Affords prompt and adequately enduring analgesic and sedative action,

—yet with a high degree of freedom from heart-depressing and cumulative by-effects.

PERALGA has a wide field of usefulness in almost every branch of Medicine and Surgery.

*Complimentary trial package and information from*

### Schering & Glatz, Inc.

Bloomfield, N. J.

New York, N. Y.

The Trade-Mark "PERALGA" is registered in the U. S. Pat. Off. under No. 160960.

## How to Care for Infusion Sets

How infusion sets are taken care of at the Miami Valley Hospital, Dayton, Ohio, is told in the following article by Alverna Shaffer, R.N., recently published in the *American Journal of Nursing*:

Infusions are used to supply the body with fluid. They are classed as follows: hypodermoclysis, intravenous and transfusion. The hypodermoclysis set consists of a graduated glass or agate reservoir, which holds 250 or 500 c.c., black soft rubber tubing, 3 feet long, which is attached to the container, a glass Y tube, connecting the large rubber tubing and two pieces of 12-inch long rubber tubing of a smaller diameter to which the needles are attached.

This is sterilized by boiling in distilled water for five minutes. The rubber tubing is coiled twice around the container to prevent kinking and thus obstructing the flow of the solution. Two sterile towels are placed between the container and glass Y tube. These are used to cover the reservoir and wrap around the small tubing and needles. The nurse prepares her hands by scrubbing for five minutes, then using alcohol 50 per cent, or by wearing rubber gloves.

The hypodermoclysis needles with stylets are placed in a glass test tube, the points resting on cotton. This prevents them from moving about and blunting the points. The open end is covered with a cotton and gauze bandage and sterilized in the autoclave for five minutes.

The following is used for a transfusion set: a 250 or 500 c.c. glass cylinder; glass stirring rod; 2 oz. glass graduate for sodium citrate; 500 c.c. glass graduate and rubber tubing with adapters. These are autoclaved for ten minutes.

### Keep Tube and Needle Passages Clear

The tubing used for transfusions is a soft, black tubing, soaked in sodium hydroxide 1:1000 (1 gram to 1000 c.c. water) for six hours, then rinsed thoroughly, dried, and made into 18-inch lengths, with a glass connecting tube, so as to see that no bubbles of air are in the tube. Another piece of tubing, 9 inches long, with metal adapter to which a needle is attached is used for drawing blood from the donor. (Metal adapters are preferred to the glass adapter, because it is much easier to direct the needle into the vein.) My authority on this is a surgeon who has given over a thousand transfusions, and his preference is a metal adapter.

The needles are of assorted sizes, and are placed in a glass receptacle, with a small piece of gauze in the bottom of the glass for the needle to rest upon, covered with albolene and autoclaved. The albolene prevents the needles from rusting and clogging.

The same articles are used for intravenous. They are cleansed with soap and water and, if mercurochrome or glucose has been given, very hot water is used to clean the tubing; if gentian violet, clean with sodium bicarbonate solution, 4 per cent (1 dram to 150 c.c. water).

If the hypodermic needle, after using, is laid aside to be cleaned and dried later, it will be found to be clogged. The needles that are known to be infected with disease producing organisms should be soaked in 1 per cent lysol and then boiled for five minutes. A point necessary to remember is that needles and syringes should be washed by drawing clean water through them, or, if an oily preparation has been used, by using benzene or gasoline for cleaning. Some one of the alcoholic solutions should likewise be drawn through to completely displace the cleansing fluid previously used by the noncorrosive antiseptic. Dry thoroughly and place stylet in the needle.

*Announcing—*

**Eastman**



**Dupli-Tized X-Ray Films**  
**(Super-Speed)**

These new *Eastman* x-ray films are the latest result of the steady evolution of scientific research and manufacturing processes in the Eastman Kodak Company.

With all the speed of the older super speed film—this new material has that latitude in *contrast* so essential in roentgenology. From glass clear areas to densest shadow the range of values can be made almost *anything* desired; and of course uniformity is, as ever, the watchword.

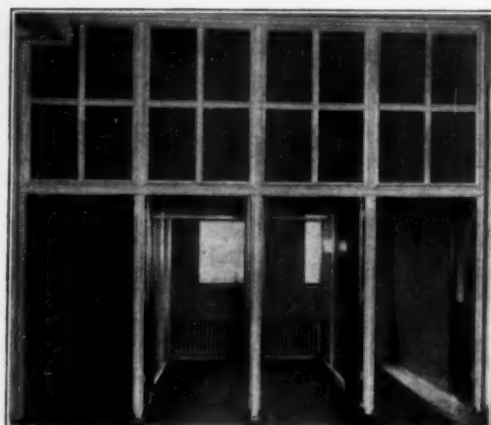
At your dealer's *now*—no advance in price.

**Eastman Kodak Company**

*Medical Division*

Rochester, N. Y.

**WEISTEEL**  
TRADE MARK  
REGISTERED



## Hospitals Discover New Use for Weisteel Cubicles

The picture above was taken just outside the X-Ray room of a well-known large hospital in the east.

Into these individual Semi-Private Cubicles, patients are brought to await, in privacy and comfort, their turn before the X-Ray. This improved service is appreciated by patients.

Such Cubicle equipment is also profitable for the hospital; the cost is low; space is conserved; both X-Ray equipment and attendants can work with maximum speed and efficiency as the next patient is always waiting for them. Annoying and costly delays are eliminated. If the operation of your X-Ray Department now presents a problem—

### Take Advantage of the WEISTEEL Professional Service Plan.

The WEISTEEL Service Plan is an exclusive feature. We maintain a corps of experienced engineers to assist you in planning for the use of WEISTEEL Semi-Private Cubicles. Just send a simple layout of your ward space to us, and without any obligation on your part, we will be glad to send complete recommendations and quotations.

Cubicles will come to you (after acceptance of quotations) with simple diagrams and erection instructions, so that your building handy-man can quickly and quietly install them.

Toilet and  
Shower  
Com-  
partments

**WEISTEEL**  
TRADE MARK  
REGISTERED  
**HOSPITAL CUBICLES**

Dressing  
Room  
Partitions  
Hospital  
Cubicles

**HENRY WEIS MANUFACTURING CO., INC.**  
Elkhart, Indiana (Formerly Acheson, Kan.)

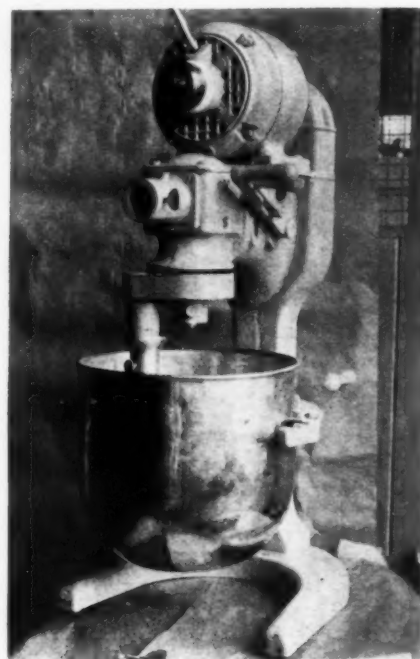
Branch Offices:

NEW YORK BOSTON CHICAGO ATLANTA LOS ANGELES

Representatives in all Principal Cities  
Established 1876

## Small Mixing Machine Designed for Table Use

A table mixing machine, designed for efficiency and compactness, has been placed on the market, to sell for \$100. The machine stands thirty inches high and occupies a space one foot square. There are two spindle and two planetary speeds. The bowl of the machine is ten and one-half inches in diameter and nine and one-half inches high, and has a capacity of twelve quarts. Attachments are supplied for a wide variety of purposes, including a meat and food grinder, crumber, ice cream freezer, vegetable slicer, coffee mill, juice extractor, four-quart oil can



for making mayonnaise, splash cover, wire whip, batter beater, dough hook, cake mixer and pouring chute.

The machine is attractively finished in battleship gray, with heavily tinned accessories. It has a one-sixth horse power motor, which may be connected to any outlet socket. The mechanical parts of the mixer are completely enclosed by steel casings, so the danger of accident or of oil and dirt getting into the food is reduced to minimum.

## How to Care for the Power Plant

By JEROME F. PECK

Superintendent, Binghamton City Hospital,  
Binghamton, N. Y.

The power plant of the Binghamton City Hospital, consists of four 200 horse power boilers

The boiler room auxiliaries consist of two steam vacuum pumps, two steam feed pumps and a ten horse power vertical steam engine operating the forced draft fan and stoker control valves, and one motor driven induced draft fan.

The engine room auxiliaries are air compressors, electric driven, and a seventy-five horse power motor generator set. The currents generated are 110 and 220 volt d.c. Breakdown service is provided for by double throw switches for the lighting and the motor generator set for power. We have a transformer vault for receiving light and power from the local light, heat and power company.

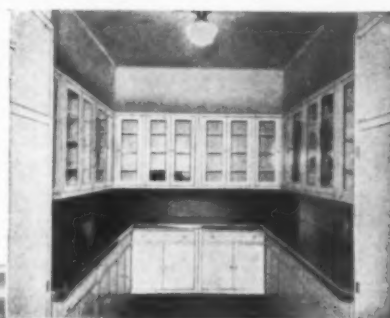


We recommend  
the use of Monel  
Metal for all hos-  
pital counters and  
working tops.

# Steel!

OVERLOOK HOSPITAL  
Summit, N. J.

Architect,  
Fredk. F. Kelley



ROBERT KOCH  
HOSPITAL,  
St. Louis, Mo.

## A Partial List of MODERN HOSPITALS

Using

*The* **WHITE HOUSE** *Line*  
SECTIONAL UNIT STEEL DRESSERS

Natrona County Hospital  
Casper, Wyo.

Cranleigh Hospital  
New York City

Michigan Soldiers' Home  
Lansing, Mich.

Vassar Brothers' Hospital  
Poughkeepsie, N. Y.

Cadet Hospital  
West Point, N. Y.

Winston-Salem Memorial Hospital  
Winston-Salem, N. C.

Bryn Mawr Hospital  
Bryn Mawr, Pa.

Eaglesville Sanatorium  
Eaglesville, Pa.

Wayne County Training School  
Northville, Mich.

St. Mary's Hospital  
Grand Rapids, Mich.

Clark County Tuberculosis Hospital  
Cincinnati, Ohio

St. Anthony's Hospital  
Denver, Colorado

Emergency Hospital  
N. Y. N. H. & H. R. Co.  
New Haven, Conn.

New Haven Hospital  
New Haven, Conn.

Montefiore Country Sanatorium  
Bedford Hills, N. Y.

Grasslands Hospital  
East View, N. Y.

Montefiore Hospital  
New York City

Henry Ford Hospital  
Detroit, Mich.

Lincoln Hospital  
Lincoln, Nebraska

St. Catherine's Hospital  
Omaha, Nebraska

Cooper Hospital  
Camden, N. J.

Princeton University Infirmary  
Princeton, N. J.

### JANES & KIRTLAND, Inc.

Established 1840

101 Park Ave., Dept. E

New York, N. Y.

**6 GOOD REASONS for Hospitals to Buy NORINKLE RUBBER SHEETS**

<b>1</b> Comfort for the Patient	<b>4</b> Economical Lasts 5 years
<b>2</b> Less work for the nurse	<b>5</b> Easily Cleaned
<b>3</b> Absolute ~ Mattress ~ Protection	<b>6</b> Adjustable ~ Does not ~ wrinkle or slide

Indorsed by the leading Hospitals and Nursing Authorities

Write for Catalog TODAY!



**HENRY L. KAUFMANN & CO.**  
301 Congress St., Boston, Mass.

We have two seven-ton ammonia ice machines, motor driven, by which an ice tank is chilled, the capacity of the ice tank being thirty-two one hundred pound cans. Various ice boxes, coolers and the morgues are cooled by brine from the ice tank supplied by two direct connected motor driven centrifugal pumps. All power units have individual motors, belts being used only in the boiler room. The boiler room, engine room and ice machines are under the constant supervision of an experienced engineer.

The generators are given daily inspection. The engines are inspected monthly and are adjusted about every three months. All electric lines are tested at the switch board for grounds at least three times a day and if one is noticed it is located and repaired at once. The main points in the care of the generators, and in fact in the care of all electrical equipment, are cleanliness and the proper condition of the armature.

The laundry contains two washers, two extractors, one tumbler, one flat work ironer, four presses and one sterilizer, each with its own motor under the charge of the laundry superintendent. These motors are blown out by high pressure air weekly and are inspected by the electrician monthly.

The elevators, of which there are four, are of the electric traction type. The two in the main building have an eight-floor lift, one of the others has a three-floor lift and the other a five-floor lift. The elevator motors and controls are inspected every other day and the cables and tracks are inspected and greased twice monthly. The four large ventilating fans are inspected every other day. The small equipment, such as fans, gauze cutter and machine motors are inspected weekly when in use.

#### Proper Care Reduces Upkeep Cost

If the electrical equipment is kept dry, clean and properly lubricated and fitted with the proper type of brushes and properly fused, the maintenance and replacement problem will be a small one. The life and usefulness of the wiring depends to a great extent on the condition of the apparatus it is supplying, and on the condition of the cable or conduit which must be clean and dry and free from oil. Oil is a great enemy of rubber and soon rots the insulation, necessitating expensive and disagreeable repairs.

Our house telephone system is maintained by the telephone company.

The doctors' call system is of the flashing number type and operates on 110 volts. The only maintenance required is the proper adjustment of the breakers and contact points.

The nurses' call system on the wards and the call bells in the nurses' home operates on twelve volts, supplied from storage batteries. The greatest trouble from this system comes from the replacement of push buttons broken accidentally or carelessly. The batteries require practically no attention beyond the replacement of distilled water.

The exhaust steam from the engines is used in the summer for the heating of hot water, of which we use about 25,000 gallons daily, and for heating the feed water for the boilers. Little heat is wasted. In winter the exhaust steam is used in the low pressure steam line for heating, and live steam is used to make up the necessary amount. In spring and autumn the exhaust steam is sufficient for heating the building. About eight months of the year our power, light and ice are by-products, as the power plant uses about the same amount of fuel, or less, than when the boilers were supplying steam for heat-



Beth Israel Hospital, Newark, N. J.

## A New Hospital Selects LAMBERTON an Old China

because it has strength with beauty, minimum breakage replacement and is the most economical hospital china made.



The China of  
Distinction

Write Us

**SCAMMELL CHINA  
COMPANY**

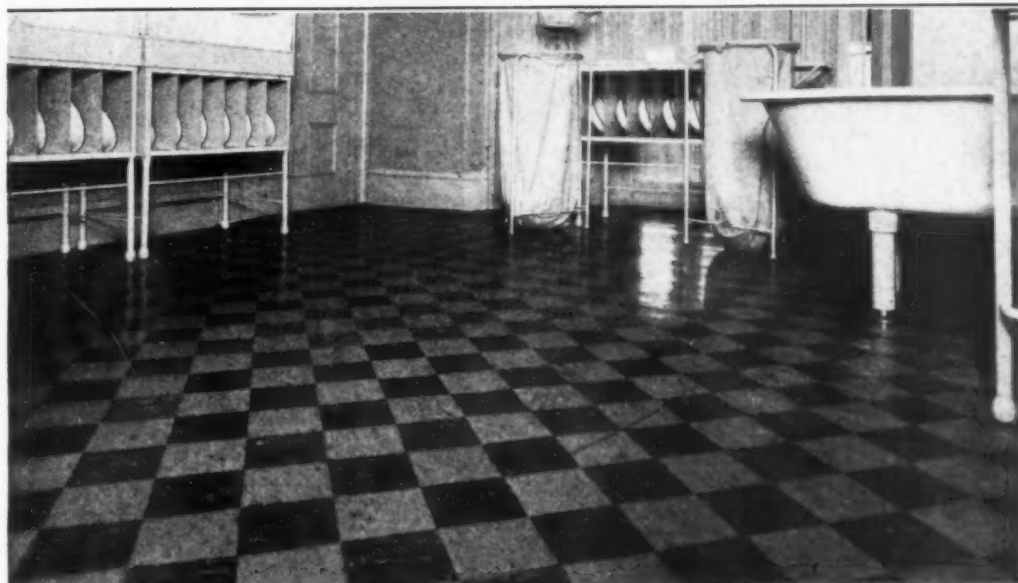
Trenton, New Jersey

New York  
70 E. 45th St.

Chicago  
17 N. Wabash Ave.



## Cleanliness mirrored in a fine floor



*Showing effective use of Goodyear Rubber Tiling in bathroom of North Shore Babies' Hospital, Salem, Mass.  
Installed by Bloom, South & Gurney, Inc., Boston*

This floor shines with cleanliness, in keeping with all appointments of this immaculate bathroom.

The floor is made of Goodyear Rubber Tiling, designed for sanitation and possessing other qualities especially suited to hospital use.

It is quiet and resilient under foot. You like to walk on it.

It is attractive to the eye. Comes

in a wide variety of pleasing patterns, with numerous two- and three-color combinations.

Goodyear Rubber Tiling is appropriate for private rooms and wards, operating rooms, offices and corridors. Quality considered, the cost is low.

Complete architectural data gladly forwarded upon request. Address Goodyear, Akron, Ohio, or Los Angeles, California.

*The Greatest Name in Rubber*

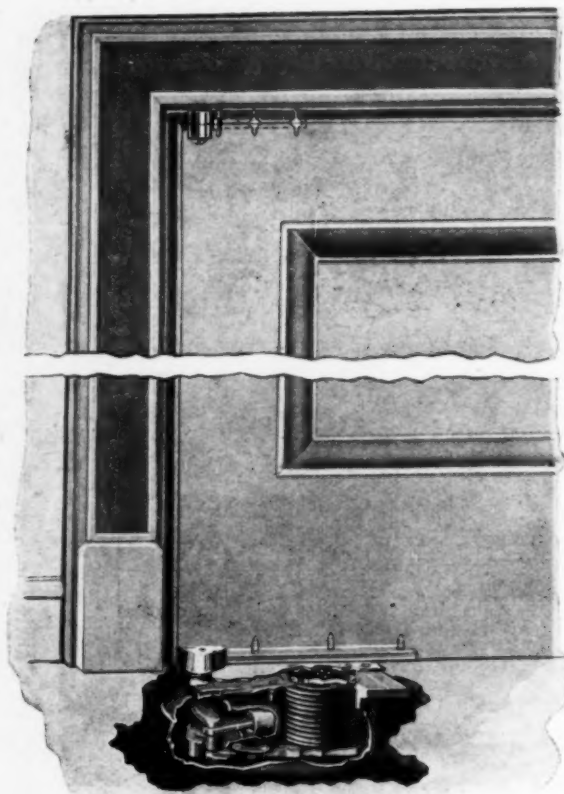
# GOODYEAR

RUBBER TILING

Copyright 1928, by The Goodyear Tire & Rubber Co., Inc.



## Announcing a New and Popular Size Single-Acting Floor Check for Interior Doors



No. 18 and 18½  
Rixson Single-Acting Checking Floor Hinge

**1**—In the development of this new single-acting floor check to sell at a popular price, we have reproduced in every sense the material qualities of the No. 20 and No. 25, and it has not been cheapened in any way.

**2**—The No. 18, being of the offset type, permits the door to be opened to 180 degrees, closing the door from all points of opening.

**3**—The No. 18½, being of the center hung type, permits of the door opening to a safe point, depending on width of jamb and likewise closes the door under control from extreme points of opening.

**4**—All working parts are immersed in a checking liquid which also serves as a lubricant. Spring tension being adjustable, adapts this check to varying conditions.

**5**—Should the door drag on the threshold or on the head jamb, the connection between the arm on which the door rests and the spindle of the device is such that the door can be raised or lowered at any time without demounting the door. Do not lose sight of the value of this adjustment.

### The Oscar C. Rixson Co.

4450 CARROLL AVE., CHICAGO, ILL.

New York Office, 101 Park Ave.

ing, sterilizing and cooking as is done at other times.

Our monthly average is from 26,000 to 28,000 K.W. of electricity and 3,500 to 4,500 pounds of ice. In addition to this, thirteen ice boxes, three meat coolers and two morgues are supplied with cold brine from the ice tank. Crediting the market price of the electricity and ice to the power plant, the monthly saving is from \$400 to \$1,500, including the added expense for supplies and salaries.

During the first eight months of 1927 we saved nearly \$700 in the fuel bill over the same period of the preceding year. In the last three months of the year the price of fuel advanced fifty cents per ton, costing \$5.50 delivered. We use about 3,600 tons per year, our monthly expenditures running from about 170 tons to 440 tons. Our heating system contains nearly 40,000 square feet of radiation.

In this instance, there is a decided balance in favor of the isolated plant, against buying power from a central station.

## Waterproof Mattress Covers Merit Commendation

A waterproof fabric which has lately been adapted for use in mattress slip covers has proved highly successful. It is washable, waterproof, scuff-proof and will not peel. It can be sterilized without injury, with bichlorid of mercury solution, Dakin's solution, or a 5 per cent solution of carbolic acid.

The material is provided in strips a yard in width so that covers of various sorts can be made with ease and the amount of tailoring and waste is reduced to a minimum. This new covering material is soft and easily handled, presenting, to a certain extent, the appearance of ordinary oil cloth. It is, however, of heavier texture and more substantial than oil cloth, and has a rough finish.

## Equipping the Hospital\*

Construction of 100-150 Bed Hospital Building  
Seven Etories—Corrugated—Face Brick—Fire-  
Proof—Colonial Architecture

Cost .....	\$548,834.08
Power House and Laundry, Brick Fireproof..	30,000.00
Elevators .....	15,000.00
Lighting Fixtures, including Emergency System .....	5,000.00
Refrigeration .....	9,700.00
Sterilizers .....	6,600.00
2—100 H.P. Boilers .....	15,000.00
Grading and Seeding Grounds .....	1,500.00
<b>Total .....</b>	<b>\$631,634.08</b>

### EQUIPMENT

Delivery Rooms (2) .....	\$ 749.90
Emergency Room Equipment .....	1,568.96
General Furnishings .....	22,711.40
Fire Apparatus .....	540.00
Inventories (Supplies) .....	8,000.00
Kitchen Equipment (main and diet) .....	5,235.00
Laundry Equipment .....	13,250.00
Laboratory Equipment (see separate list) ...	3,229.55
Linen and Bedding (exclusive of Mattresses and Pillows) .....	5,348.55
Nurses Stations Equipment (6) .....	2,868.00

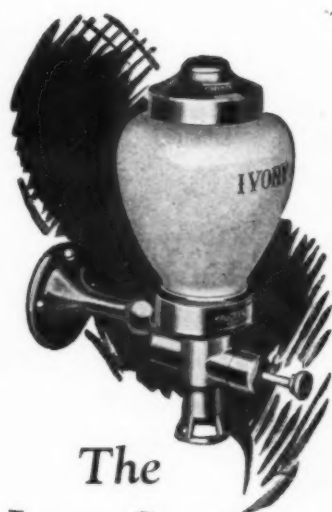
\* This list of equipment and the prices mentioned have been supplied to THE MODERN HOSPITAL through the courtesy of P. W. Behrens, superintendent, Williamsport Hospital, Williamsport, Pa. It is based upon an actual inventory made in November, 1927, and is considered applicable to a 100-150 bed hospital. The list will be run in installments in succeeding issues of THE MODERN HOSPITAL.



St. Luke's Hospital, Chicago, Ill., and one of its ward lavatories equipped with Ivory Dispensers.



## Ivory Soap serves patient, visitor and personnel in Chicago's famous St. Luke's Hospital



### The Ivory Soap Dispenser

Sanitary, Attractive, Economical, Fool-proof. Dispenses Ivory Soap in fine flakes. Prices upon request.

Purity, mildness and thorough cleansing ability—these were the qualities which decided the administration of St. Luke's in favor of Ivory Soap — in two forms.

Here you will find Ivory Soap Dispensers in the doctors' and nurses' wash-up rooms; miniature cakes of Ivory for the patients; and Ivory dispensers in the public lavatories to serve the visitor.

The familiar cake of Ivory has played its part in leaving with the discharged patient a pleasant memory of his stay at this splendid institution. There is perhaps no other service equally satisfying that a hospital can provide so inexpensively.

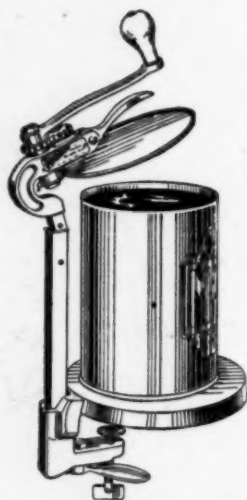
**PROCTER & GAMBLE**  
Cincinnati, Ohio

### Miniature IVORY

Five individual service sizes—from the half-ounce cake to one weighing three ounces. Sample cakes upon request.



# OPENS CANS QUICKLY EASILY SAFELY \$7.50

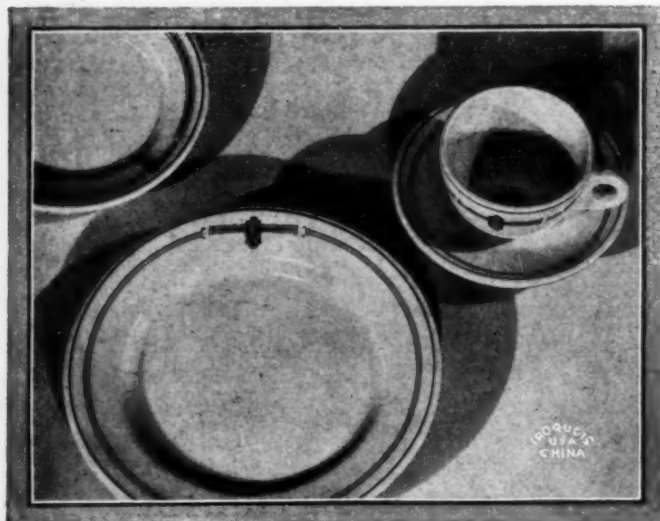


Just turn the handle and the top is off — cleanly cut, so the contents slide out whole.

Gallon cans — cans of any size or shape are speedily opened with the Blue Streak. It's made for long, rugged service. The bright nickel is easily cleaned.

Order from your supply house or direct.

**TURNER & SEYMOUR  
MFG. COMPANY  
TORRINGTON, CONN.**



**I**ROQUOIS CHINA meets the special requirements of hospitals. The tough body and extremely hard glaze not only assure long wear but provide a surface which is easy to clean and sterilize. Special designs made to order. Many appropriate stock designs available.

IROQUOIS CHINA CO., SYRACUSE, N. Y.  
Hospital, Hotel and Restaurant China Exclusively

**IROQUOIS CHINA**

Operating Rooms (4) .....	12,945.00
Office Equipment .....	2,935.50
Pharmacy Equipment (see separate list) ....	1,688.80
Scales .....	375.00
Trucks .....	89.00
Utility Rooms Equipment (6 floors) (see separate list) .....	1,666.30
Window Shades and Hangings .....	1,000.00
X-Ray Equipment (see separate list) .....	8,872.74
Wheel Stretchers and Chairs .....	1,098.00
Tray Service, glass, china, etc. (see separate list) .....	3,721.37
Dining Room Service, glass, china, silver ....	1,720.72
Miscellaneous Apparatus for Floors .....	3,481.00

Total .....\$103,094.79

Total Construction .....\$631,634.08  
Total Equipment ..... 103,094.79

Grand Total .....\$734,728.87

Construction Costs for 100 or 150 Beds  
Fireproof, Corrugated (Face) Brick, Colonial Architecture, Length 135 feet, Width 46 feet, not including Porches Seven Stories

Excavating .....	\$ 5,996.25
Back Fill and Grading .....	469.00
Concrete Footings and Walls .....	10,935.00
Concrete Floors and Base .....	18,488.75
Flooring—Rooms and Halls .....	19,000.00
Water Proofing, etc. ....	228.00
Reinforcing Rods and Metal Lumber .....	17,426.53
Structural Steel .....	19,125.00
Vault Lights and Misc. Steel and Iron Work .	10,567.00
Brick Masonry 428,000 Face and 98,000 Filler .	81,574.71
Metal Work including Skylights and Kalameined Doors, etc. ....	6,782.55
Marble Work .....	11,300.00
Tile and Terrazzo Floors, Operating Rooms, etc.	14,218.00
Cut Stone .....	29,498.80
Gypsum Partitions .....	13,376.48
Plastering, Felt .....	56,332.00
Roofing .....	1,200.00
Paint, Glazing, etc. ....	11,197.00
Weather Stripping .....	3,367.00
Rough Lumber for sheds, elevator toney scaffold, door bucks, etc. ....	4,778.48
Hardware .....	9,791.50
Mill Work .....	16,725.00
Telephone .....	85.00
Water Rent .....	350.00
Compensation Insurance .....	800.00
Surveys, Wood and Coal, etc. ....	1,150.00
Labor .....	39,290.00
Cartage .....	2,261.40
Models .....	930.00
Commission .....	35,000.00
Bond .....	6,170.63
Electrical Work .....	16,343.00
Heating and Ventilating .....	36,963.00
Plumbing .....	47,114.00

Total .....\$548,834.08

## ONE DELIVERY ROOM EQUIPMENT

1 Obstetrical Delivery Bed .....	\$190.00
1 Instrument Table .....	22.00
1 Anesthetist's Stand .....	13.50
1 Basin Stand Triple .....	17.00
1 Basin Stand Single .....	9.00
2 Stools high .....	\$7.50 15.00
1 Foot Stool .....	4.50
1 Bassinette .....	14.00
1 Sponge Bucket .....	1.75
1 Floor Extension Light .....	15.00
1 Resuscitation Bath—double .....	22.00
1 Resuscitation set—oxygen .....	16.00
1 Foot Tub .....	3.25
<i>Instruments</i>	
2 Kelly Forceps—curved .....	\$1.50 3.00
2 Artery Forceps—straight .....	1.40 2.80
1 Thumb Forceps .....	.55
2 Tissue Forceps .....	1.10 2.20
4 Towel Clips .....	1.25 5.00
1 Needle Holder .....	3.25

# Hospital Comfort



## A Few of Many Atheyized Hospitals

Walter Reed Hospital, Washington, D. C.  
Alexian Bros. Hospital, Chicago, Ill.  
Mount Sinai Hospital, Chicago, Ill.  
St. Joseph's Hospital, Chicago, Ill.  
Illinois Central Hospital, Chicago, Ill.  
Austin Hospital, Chicago, Ill.  
Mount Sinai Hospital, Cleveland, Ohio  
St. Elizabeth's Hospital, Appleton, Wis.  
Nurses Home, Ogden, Utah  
Lutheran's Old Peoples Home,  
Milwaukee, Wis.  
St. Joseph's Hospital, Milwaukee, Wis.  
St. Luke's Hospital, New York, N. Y.  
Midway Hospital, St. Paul, Minn.  
Mayo Clinic, Rochester, Minn.  
Recreation Bldg. Marine Hospital,  
Aspinwall, Pa.  
Truistell Hospital, Leominster, Mass.  
Home of the Friendless, Lockport, N. Y.  
Lutheran Hospital, Columbus, Miss.  
Ft. Saunders Hospital, Knoxville, Tenn.,  
Multnomah County Hospital,  
Portland, Ore.  
Notre Dame Hospital, Montreal, Canada  
San Luis Obispo Hospital, San Luis  
Obispo, Calif.

Waiting Rooms, Of-  
fices and Lobbies are  
far more interesting  
and beautiful when  
Athey Shades are used.

Windows properly shaded to allow light (not glare) to enter—windows that keep out cold, drafts, dust and gases, working noiselessly, without rattling—Sufficient heat in Winter and coolness in Summer—*That's Comfort.*

Upon entering a room equipped with Athey Window Shades, one immediately becomes conscious of a feeling of something pleasantly different—the soft glow of diffused light and homelike atmosphere, no noisy flapping of shades in winds, no catches or springs to get out of order. In Summer the rooms may be kept surprisingly cool by lowering the window several inches at the top and shading the whole window except about six inches at the bottom. The heat of the sun on the window and shade causes a natural draft that excludes all the super-heated air and the hot outside air.

## Eliminate Awnings

Athey Shades, because they can be instantly adjusted to shade any part or all of the window, eliminate the necessity of expensive short-lived awnings. With these beautiful shades, some of the finest hospitals are discontinuing the use of awnings.

## ATHEY WEATHERSTRIPS

Save enough fuel to pay for the installation in less than three years and assure a comfortable temperature in every room during cold, windy weather.

Tests have shown that the average window in a 45-mile an hour wind, allows 2 9/10 cu. ft of cold air to enter the room every minute. When Athey Weatherstrips are installed, less than 1/4 cu. ft. of cold air can enter. Leaky windows not only cause discomfort to the patients, but necessarily waste fuel because of a forced heating plant. Athey Cloth-Lined Metal Weatherstrips last the life of the building, yet pay for themselves in less than three years by saving fuel, not including the saving through cleanliness or ash and fuel handling.

SEND FOR NEW CATALOG

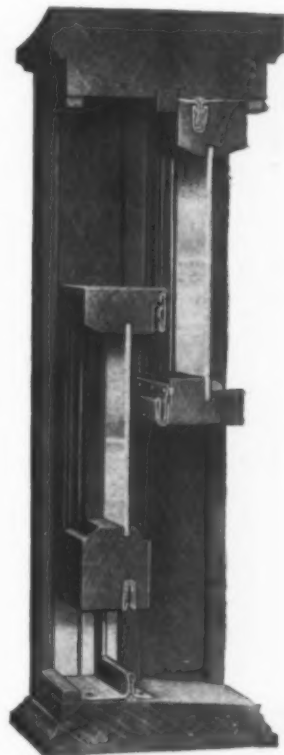
# Athey

CLOTH LINED  
WEATHERSTRIPS

Perennial  
Window  
Shades

ATHEY  
COMPANY  
6052 W. 65th St.  
CHICAGO

New York City: F. H. KEENE,  
7 East 42nd St.  
Detroit: W. O. LeSage & Co.,  
410 Donovan Bldg.  
Montreal, Quebec:  
Creswell-McIntosh, Reg'd  
420 Seigneurs St.



A FEW OF MANY PROMINENT INSTALLATIONS ALL OVER AMERICA.

## Need Money for a New Building?

Every hospital has in its executive positions trained specialists. Such persons accomplish more in less time than others.

The same principle applies to raising money. Specialists raise more money most economically.

**"Financing  
Philanthropy"**  
quarterly  
paper, free  
on request

Hedrick, Marts & Lundy offer the experience of a number of men who have successfully raised money in many cities from the Atlantic to the Pacific. They have obtained large sums for new hospitals, for additions to old equipment—or to clear off accumulated debt.

Campaigns undertaken anywhere. All the many details are carefully directed by our experienced staff.

Tell us your plans.

**HEDRICK, MARTS & LUNDY, Inc.**

Member Joint Board of Campaign Counsel and Planning  
527 Fifth Avenue New York



This nurse is wondering if the heat has penetrated to the center of the package. She delivers doubtful dressings.



This is a SAFE NURSE. She takes no chances. She uses a Diack control every time she sterilizes—she KNOWS.

**YOUR HOSPITAL IS NOT A SAFE  
HOSPITAL**

UNLESS

**DIACK CONTROLS**

FOR STERILIZATION

ARE USED TO PROVE

HEAT PENETRATION

USED IN ALL EFFICIENT HOSPITALS

Safety Should Accompany Service

100 FOR \$6.00

**A. W. DIACK**

5533 Woodward Ave.

DETROIT, MICH.

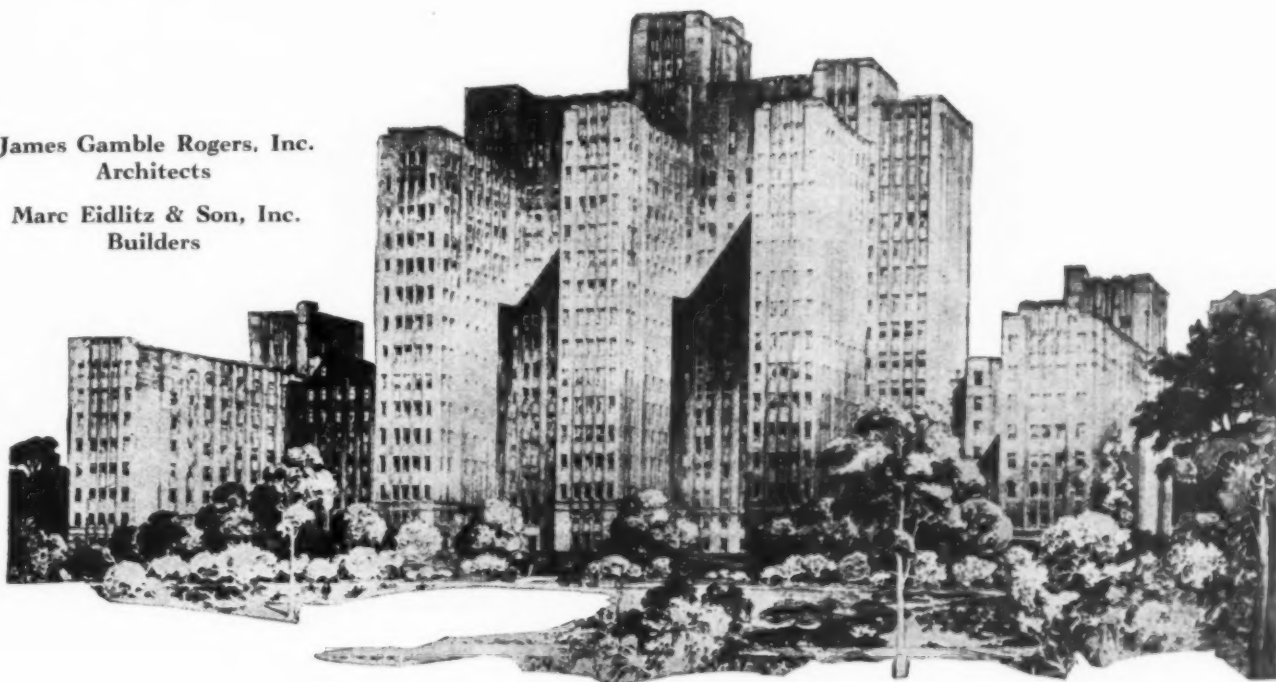
1 Scissors—straight .....	1.40
2 Perineal Needles .....	2.25 4.50
1 Cervix Needle .....	2.25
1 Low Forceps—in readiness .....	7.00

Total .....\$374.95

### DENTAL DEPARTMENT

1 4 B Unit White Lacquer .....	\$1,191.00
1 Compressor White Lacquer .....	280.00
1 X-Ray Machine White Lacquer .....	920.00
1 Coolidge Tube .....	125.00
1 Lathe White Lacquer .....	135.00
Sub Base for Unit .....	13.00
Dental Chair White Lacquer .....	470.00
1 White Enamel X-Ray Chair .....	85.00
1 White Enamel Cabinet .....	82.50
1 White Enamel Receptacle .....	9.50
1 Fracture Outfit .....	11.00
Reception Room Furniture .....	150.00
Desk .....	75.00
Desk Chair .....	25.00
Straight Chair .....	20.00
1 Sterilizing Cabinet .....	325.00
1 Box Bees Wax .....	.75
1 Box Mod. Comp. ....	.60
1 Wax Spatula .....	.80
2 Scrapers .....	.90
1 D. E. File .....	.45
1 Rattail File .....	.40
1 Chamois Wheel .....	.50
2 Brush Wheels .....	.75
1 Latherstone .....	.55
1 Mouth Gag .....	3.00
1 Curette .....	1.50
1 Cook Syringe .....	6.50
100 Cook Carpules .....	8.50
1 Dozen Needles .....	1.63
1 Bottle Eugenol .....	.60
100 Sept. Disks .....	1.00
1/2 Dozen Heatless Stones .....	.40
1 Matrix Retainer .....	2.25
1 Package Copper Strips .....	1.00
1/2 Dozen Mtd. Pts. ....	1.00
1 Plaster Bowl .....	.85
1 Box Sticky Wax .....	.50
1 Dozen Rubber Cups .....	.50
1 D. P. Handle .....	1.50
1 Dozen Blades .....	1.50
1 Alcohol Lamp .....	.50
1 Ounce Trudent .....	2.40
1/2 Pound Mercury .....	.90
1 Mercury Holder .....	.90
1 3-Color Box Kryptex .....	7.50
1 Bottle Formal Cresol .....	1.00
1 Cavity Lining .....	.90
1 Chip Syringe .....	.90
1 Bottle Butyn .....	1.50
1 Water Syringe .....	1.75
2 Pr. SSW Forceps .....	15.00
1 Mixing Slab .....	1.35
2 Mouth Mirrors .....	1.40
2 C. S. Handles .....	.50
1 Gross Burs .....	10.75
2 Mandels .....	.80
1/2 Dozen No. 303 Mandels .....	1.00
1 Box 1400 Disks .....	2.25
1 Box 500 Strips .....	1.50
3 L. N. Scalars .....	3.00
2 L. N. D. P. Scalars .....	2.00
2 L. H. Chisels .....	1.80
4 D. P. Excavators .....	4.00
2 L. H. Explorers .....	1.00
1 Dorior H. P. ....	21.00
1 Contra Angle .....	8.50
1/2 Gross Broaches .....	3.50
2 Broach Holders .....	1.20
1 Flat Floss Font .....	2.50
1 Dappen Glass .....	.40
2 D. Bl Elevators .....	10.00
1 Pair E. & B. Shears .....	3.50
1 Pair Pliers No. 122 .....	4.25
3 Pair Forceps .....	16.25
1 Crown Slitter .....	8.00

MANUFACTURERS SINCE 1852

James Gamble Rogers, Inc.  
ArchitectsMarc Eidlitz & Son, Inc.  
Builders

## DOUGHERTY Kitchen Equipment in the *World's Largest Hospital*

The gigantic \$18,000,000.00 Columbia Presbyterian Medical Center above Washington Heights, New York City, has gained universal recognition as the "WORLD'S LARGEST HOSPITAL." One hundred and seven rooms of this great institution are equipped with DOUGHERTY KITCHEN EQUIPMENT of the latest, modern type for the preparation and serving of food.

Authorities at the Medical Center reaffirmed the choice of thousands of prominent users in every section of the country when they selected DOUGHERTY KITCHEN EQUIPMENT. They knew that it offered reliability, economy, and the proper sanitation for the health and protection of every patient. Monel Metal was used throughout to insure added cleanliness and long-life.

Whether your Food Service requirement is a single replacement or an entire installation, why not get acquainted now with the many advantages in selecting DOUGHERTY Equipment? You will find it a convincing answer to every Food Service problem you have!

Back of DOUGHERTY Equipment is the skilled service of the DOUGHERTY Kitcheneers. They will gladly render every assistance in drawing plans or making suggestions for your Food Service Department. Of course, this work is entirely gratis.

# W.F. DOUGHERTY & SONS

Everything For



The Kitchen

1009 ARCH ST.

PHILADELPHIA



## Effective bulk that patients relish

When bulk has been indicated as a preventive or corrective for constipation, physicians and nurses find Post's Bran Flakes a natural and effective regulator.

When appetite is jaded because of restricted diet, patients find welcome variety in the crisp texture and delicious flavor of this popular cereal.

In one food Post's Bran Flakes offers palatability, bulk, and such important elements as iron, phosphorus, proteins, carbohydrates and vitamin-B.

Postum Company, Inc.  
Dept. B-2958, Battle Creek, Michigan

*We shall be glad to send to any physician or nurse a sample of Post's Bran Flakes and samples of other Post Health Products, which include Post's Bran Chocolate, Grape-Nuts, Post Toasties and Instant Postum. If you live in Canada, address Canadian Postum Company, Ltd., 812 Metropolitan Building, Toronto 2, Ontario.*

# POST'S BRAN FLAKES

WITH OTHER PARTS OF WHEAT

as an ounce of prevention



© 1928, P. Co., Inc.

1 Plaster Knife .....	1.50
1 Plaster Spatula .....	.70
1 Abscess Prob. ....	1.50
1 Plastic Instrument .....	1.25
1 Spatula No. 36 .....	1.40
1 Pair Plate Shears .....	4.50
1 Plate Brush .....	.80
1 Arkansas Stone .....	2.60
2 Pair Stellite Pliers .....	5.00
1 Pair Ash Forceps .....	7.00
1 No. 1414 A Sterilizer .....	137.00
1 No. 11 Lavatory Bench .....	72.00
1 Shuman Retractor .....	5.00
1 Black Retractor .....	5.00
1 Austin Retractor .....	4.00
1 Set Jones Retractor .....	9.00
1 Bishop .....	1.00
1 Set Shuman Retractor .....	9.00
1 Ogden Forceps .....	7.50
1 Tounge Retractor .....	5.00
1 Molt Gag .....	7.50
1 Deam Shear .....	10.00
2 Sets Luvis Props .....	1.80
1 Antrim Curette .....	4.00
1½ Dozen Surgical Needles .....	6.75
4 Surgical Burs .....	1.50
4 Surgical Trephines .....	.75
1 D. E. Bone File .....	6.50
1 20-Ga. Bur .....	.90
1 50-Yard Dental Floss .....	1.35
1 Luer Syringe .....	2.00
1 Flecks Copper Cement .....	3.00
1 Dozen Kangaroo Tendons .....	3.60
1 T. Fitting .....	2.50
1 Jelenga Splint .....	15.00
2 Pair Patton Pliers .....	4.50
25 Ft. B. T. Tubing with Conn. ....	8.00
5 Ft. B. T. Tubing with Conn. ....	1.60
6 Ft. B. T. Tubing with Conn. ....	1.60
1 Terminal Valve .....	5.25
Winters Elevators .....	120.00
Total .....	\$4,586.88

## Proper Care of Floors Is Essential

Success in the care of hospital floors is somewhat dependent upon the previous treatment they have received. This, according to Carolyn E. Davis, superintendent, Minor Hospital, Seattle, Wash., presents a difficult problem to the household manager. The so-termed "hard floors," terrazzo and compositions including rubber, are best cleaned with a neutral soap, a mild detergent including pumice to be applied wherever necessary. All other types of flooring may be cared for with waxing which, if applied regularly, will preserve the floor almost indefinitely. This can be done at reasonable cost by using mechanical cleaning wherever possible. Vacuum cleaners with the attachments and electric scrubbers and polishers do better and more even work in a shorter time, and reduce the number of the personnel.

The life of wood flooring, both hard and soft, even though shellacked and varnished to a beautiful finish, will be greatly lengthened by waxing. Places that get particularly heavy wear may need frequent attention between the regular polishing times. A large majority of people judge the whole upkeep of the hospital by the appearance of the walls and floors, and first impressions usually mean lasting remembrances, so it pays to make a good first impression.

The American Hospital Association estimates that twenty-two cents of every dollar a hospital spends, goes into household supplies and maintenance upkeep. The savings effected through the proper regulation and use of these supplies will do far more to keep down costs than the most careful system of purchasing.

# Get these utensils at special prices

OFFER EXPIRES  
JUNE 30

**"Wear-Ever"**  
ALUMINUM

5½ qt. double  
boiler



\$**4<sup>40</sup>**  
delivered

*Special prices*

[[ Prices on both utensils slightly higher  
West of the Rocky Mountains ]]

**"Wear-Ever"**  
ALUMINUM

4½ qt. sauce  
pan



\$**3<sup>50</sup>**  
delivered

**W**E have found that the most effective way of convincing stewards and chefs of the economy and better-cooking qualities of "Wear-Ever" is to have them use "Wear-Ever" and discover its advantages. That is the reason for this special, limited time offer.

You may order as many of these two utensils as you require at the special prices, provided you do so before the offer expires. **DO IT NOW!**

Order from your Supply House  
or write

**The Aluminum Cooking Utensil Co.**

New Kensington, Pa. & East St. Louis, Ill.

Oakland,  
Cal.





## DISTINCTIVE

A dignified, efficient and distinctive method of marking hospital trays which appeals to the patient's sense of individuality and gives evidence that the institution is using care in keeping every patient's tray and napkin properly identified. It occupies but small space, fitting into the corner of the tray. It provides ample ring space with separate clip for the card. Holder is silver plated on hard white metal; very durable. Cards are specially printed with the name of your institution. Can be supplied in colors for special diets, if desired.

- 141-A-3—Silver holders, per doz...\$5.50
- 141-A-4—Specially printed cards, white only, per 1,000.....\$3.00
- Additional thousands.....2.25
- 141-A-5—Specially printed cards, any color or assorted, per 1,000.....\$3.50

The above is a typical example of the many items in hospital service which have been designed by us to improve or economize hospital service.

Will Ross, Inc., offers a complete service in hospital supply, furnishing virtually everything but foods and drugs. If you are not using our catalogue regularly both of us are losing much. May we send you a copy?

A cellulose absorbent that has set new standards of quality, that has brought prices down, and is favored by hospitals because of the convenient way it is packed and the ease with which it can be handled and used. Cheaper, more absorbent and convenient than the best absorbent cotton. Supplied in two, five and sixteen pound rolls or in cut size. Prices on application.

# Sanisorb

THE IDEAL ABSORBENT

**WILL ROSS, INC.**  
WHOLESALE HOSPITAL SUPPLIES  
459 E. WATER ST. MILWAUKEE

(Continued from page 128)

development of the surgical department; hospital floorings; and design of wards will be discussed.

A series of clinics on the kitchen and dietetics will be supervised by Anne E. Boller, director of dietetics, Rush Medical College, Chicago. Physiotherapy clinics are to be directed by Dr. John R. Hughes, general chairman of the convention; Dr. J. S. Coulter, Northwestern University, Chicago; Dr. David Willmoth, Louisville, Ky.; Dr. W. S. Lawrence, professor of radiology and physiotherapy, University of Tennessee, Memphis; Dr. Charles P. Hutchins, president, American Academy of Physiotherapy, and Dr. Edward M. Kime, professor of physiotherapy, University of Indiana. They have chosen for discussion the following questions: planning, placing and equipping a hospital physical therapy department; electro-coagulation; adequate equipment; methods of procedure in the physical therapy department for the application of x-ray and radium therapy, air and water cooled ultraviolet medical and surgical diathermy; relation of physical therapy to industrial insurance work; spectral analysis of various sources of ultraviolet light and their evaluations.

A special feature of the convention will be trips to the various factories in the Cincinnati district which have exhibits at the convention. The trips are being arranged by the Hospital Exhibitors' Association.

The program arrangements and local affairs in Cincinnati are in charge of a committee headed by Dr. A. C. Bachmeyer, superintendent, Cincinnati General Hospital. Dr. Bachmeyer has secured the cooperation and assistance of all of the hospitals in Cincinnati and of many of the leading members of the medical profession in the district. In the clinic on general surgeries, there will be a team demonstration of modern technique in the management of major surgical suites, conducted by a team from one of the leading hospitals in Cincinnati, and there will also be a demonstration of modern methods in the management of pediatric departments and children's hospitals by representatives of the Cincinnati Children's Hospital.

## Conference Holds Annual Meeting

The annual meeting of the American Conference on Hospital Service, held in Chicago recently, was attended by representatives from fourteen national organizations. Dr. A. C. Bachmeyer, president, reviewed the work of the organization, and made special reference to the development of the Hospital Library and Service Bureau, the new quarters for which were provided free of charge by the American Hospital Association. Dr. Frank Billings was unanimously elected honorary president and Dr. Harry E. Mock, president for the ensuing year. The delegates moved that the trustees of the organization be requested to make a study of the purpose for which the conference was organized, and that on the results of this study, the plans for future activities should be based.

## Hospital Plans Exhibit in London

The annual meeting of the Incorporated Association of Hospital Officers, will be held in London, June 15. An interesting feature of the technical exhibits at the meeting will be a special section showing plans and models of typical institutions, including general and special hospitals, municipal hospitals, mental hospitals, orphanages and nurses' homes.

*Work Portraits—*from the Ligature Department of Johnson & Johnson

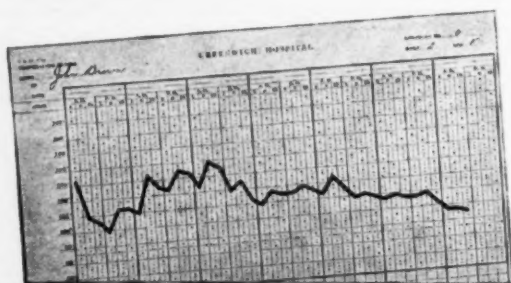


**E**XPERT workmanship, modern apparatus and sanitary conditions—all requisites in the manufacture of Johnson & Johnson ligatures.

Every process, from first to last, receives careful supervision.

The "Handbook of Ligatures and Sutures" describes in a clear, simple manner the handling and use of this material. Write for it.

|| < *Johnson & Johnson* > ||  
NEW BRUNSWICK. N. J. U. S. A.



## Would it look like a fever chart?

**I**F YOU plotted the performance of the X-ray intensifying screens in your various cassettes would it give you a healthy record . . . or would it look like a patient's fever chart? There should be no variation . . . your chart should be a straight line. Lack of uniformity in screens means interference with control of the known variables such as time of exposure . . . milliamperage . . . spark gap . . . positioning of the patient, etc.

The possibility of any difference in screens can be eliminated by selecting PATTERSONS. Absolutely *uniform* in performance, they permit the radiographer to use cassette after cassette without giving a thought to the screens. Possessing *speed . . . lack of grain . . . freedom from lag . . .* and *cleanability . . .* Pattersons are strong and pliable in construction and practically impervious to dirt. These features, assuring consistent, satisfactory results, make them the choice of leading roentgenologists everywhere.

We shall be pleased to send a sample screen free of cost for the radiographer's own test.

THE PATTERSON SCREEN COMPANY  
Dept. M. H. Towanda, Penn.

**Patterson**  
**X-RAY**  
**Screens**

INTENSIFYING ~ FLUOROSCOPIC

*Made by specialists . . . pioneers in their line . . . the first cleanable intensifying screens were Pattersons.*

## War on Tuberculosis Becomes Educational Campaign

Preventive measures have recently taken a place of great importance in the war on tuberculosis. It is through recognition of the destructive powers of this disease that the National Tuberculosis Association has launched its "Early Diagnosis" campaign, which, it is reported, has developed into the largest educational campaign in the history of that organization.

Every effort is being made to impress on the minds of the people the importance of early diagnosis and recognition of tuberculosis, so that it may be properly treated and checked in its early stages before it has a chance to weaken and destroy the body beyond repair.

The immensity of the program may be conceived with the realization that 10,000,000 pieces of printed matter were sent out from the office of the National Tuberculosis Association, along with 262 motion pictures, and 2,500 lantern slides, besides a number of pictures and news stories which have been sent to various publications. Aside from this, 50,000 copies of the March issue of *Tuberculosis Abstracts* have been distributed.

## Street Widening Hastens Building of New Hospital

The construction of a new building at the Henrotin Memorial Hospital, Chicago, has been hastened by the proposed widening of LaSalle Street, where the institution is located. The widening of the street will necessitate tearing down fourteen feet of the front of the building, and as it is only forty feet deep, the remainder would be inadequate for further service, so the entire building will be taken down.

The new building, which will be constructed in the rear of the present site, will be ready for use before the work of tearing down the old one starts, so it will not be necessary to suspend activities.

The new hospital will represent an investment of more than \$250,000, and it is hoped to make this a medical center for the north side.

The Henrotin Hospital, built in 1886, was the first post-graduate hospital center west of the Atlantic.

## Hospital Administration Clinic Launched in New Jersey

Dr. Paul Keller, president of the New Jersey Hospital Association and superintendent of the new Beth Israel Hospital, Newark, N. J., has successfully inaugurated a sort of hospital administration clinic, which he calls the "Local Group Meeting." The third of these clinics was held on the evening of February 16, at the Academy of Medicine, Newark, N. J., in accordance with an established schedule appointing the third Thursday of each month as the time for these monthly conferences.

The Rev. John G. Martin, vice-president of the association, presided at this group meeting, for which no set program was prepared. Topics for discussion were presented by any member of the group, which numbered more than a score. Among the problems discussed in this fashion were the following:

"Should the state, county or city be expected to make

Conemaugh Valley Hospital of Johnstown, Pa., is equipped with "Standard" Plumbing Fixtures and Fittings especially designed for hospital and clinical service. Walter R. Myton, Architect.



## "Standard" Hospital Plumbing Fixtures mean minimum upkeep costs



No. HP-13225—Infant's Bath made of Acid-Resisting Enamel or regular enamel.



No. HF-12005—Surgeon's Lavatory with Instrument Trays of Genuine Vitreous China.

Whenever "Standard" Plumbing Fixtures and Fittings are installed you may be sure that they will deliver perfect service and lasting satisfaction at a minimum upkeep cost. "Standard" Plumbing Fixtures made of Acid-Resisting Enamel are unaffected by common acids, antiseptic solutions and by the abrasive action of cleansing compounds. They cannot become stained, discolored or roughened. Thus they retain their original beauty permanently.

"Standard" Plumbing Fixtures made of Genuine Vitreous China are straight and strong and have a bright, gleaming surface which will not crack or craze. "Standard" Fittings are made of heavy brass and are available in Chromard Finish—the non-tarnishing, non-corroding, wear-proof finish that retains its satin-silver lustre with but casual care.

In every particular "Standard" Plumbing Fixtures and Fittings are ideally suited for use in hospitals, clinics, and in the physician's office. They are fully illustrated and described in the new loose-leaf catalogue "Standard" Plumbing Fixtures for Hospitals, which is sent on request. Write for it today!

Hospital Fixture Department  
Standard Sanitary Mfg. Co., PITTSBURGH

**"Standard"**  
PLUMBING FIXTURES  
for HOSPITALS

## At the root of many troubles

How often does diagnosis reveal, as the cause of trouble, faulty functioning of the alimentary canal. Many diseases, more than forty, can be traced to constipation.

In this day of preventive medicine, Kellogg's ALL-BRAN is the physician's ally. It healthfully promotes peristalsis by supplying the necessary bulk or roughage. It is not only effective in relieving constipation, but in preventing it.

ALL-BRAN is 100% bran. Physicians know it can be depended upon to accomplish *complete* results. No part-bran product can do the same.

And patients enjoy Kellogg's ALL-BRAN. Served with milk or cream, with fruit or honey added, or in cooking, its appetizing nut-like flavor makes it a delightful "prescription."

Made by Kellogg in Battle Creek, Michigan. Sold by all grocers. Served everywhere.

**Kellogg's**  
ALL-BRAN



up the hospital's annual operating deficit?" "Who is responsible for the bills of the accident case?" "Should graduate nurses, staff members and the members of their families be billed for hospital treatment? On what basis?" "How should hospitals in large cities report to the community chest or other central ordinating agency?"

In discussing the last topic, Isabel Sims, director of the Welfare Federation of Newark, presented a typical form for the use of hospitals in Newark for reports to the federation monthly, instead of quarterly, as has been the accepted custom. Only four cities in the United States have adopted this closer and more competent system of keeping in touch with their member agencies, but under the program of the National Association of Community Chests this practice is expected to gain wider usage during the coming year.

Fred W. Heffinger, superintendent, Mercer Hospital, Trenton, N. J., outlined the Pennsylvania system of state aid for hospitals, as he knew it during the time he served in that state. Eleanor Hamilton, superintendent, Presbyterian Hospital, Newark, outlined a new schedule of prices charged to graduate nurses, which was worked out after a comprehensive survey of other institutions, to discover the common or average practice. Accordingly the hospital now charges its own graduates one-half the regular rate, and this applies as well to any dependents of the graduate. If the nurse is married, however, she is billed at the full rate, except in unusual cases and after investigation.

Others active in the various discussions included Florence P. Burns, superintendent, Babies' Hospital, Newark; Dr. William J. Monaghan, superintendent, Hudson County General Hospital, Secaucus; Eva Caddy, St. Barnabas Hospital, Newark; Elsie Helmers, City Hospital, Newark; Rev. Thomas A. Hyde, superintendent, Christ Hospital, Jersey City, and Dr. Earl H. Snavely, superintendent, City Hospital, Newark.

### Chicago Dietetic Association Meets

Ruth Emerson, department of social service at the university clinics, University of Chicago, was the speaker of the evening at the April meeting of the Chicago Dietetic Association. Rose Straka Fowler, newly appointed chairman of the publications committee, announced that the work of the committee for the coming year will be the abstracting of articles relating to the work of the association. A number of minor changes were made in the constitution.

### Austin Hospital Sold for \$738,000

The sale of the Austin Hospital, Chicago, a new and modernly equipped institution, which has a capacity for 140 patients, to the Frances E. Willard National Temperance Hospital, was recently announced.

The Austin Hospital had been declared in bankruptcy about six months ago, and the sale of the institution was delayed by keen competition in bidding. The final bid, through which the Frances E. Willard Hospital gained ownership, was \$738,000.

The location of the hospital is ideal, as there are no similar institutions in proximity. The building is directly opposite Columbus Park and is in a comparatively new part of the city. The neighborhood is rapidly being built up, and the need for a hospital in the community has already asserted itself.

## THIS INFORMATION WILL INTEREST EVERY PEDIATRIST

**K**ARO Syrup varies in color from crystal white to golden brown. The main difference between the widely known Red Label and Blue Label is flavor or taste.

Cane Sugar and vanilla in Karo Red Label and refiners' syrup in Karo Blue Label have been added to satisfy individual preferences.

Karo is not all Dextrose, but this fully converted,

quickly absorbable sugar comprises about 30% to 35% of its total (varying with the flavor), the largest portion of the balance of the solids consists of dextrin—about 36%—which is an intermediate product of the conversion between the raw carbohydrate and the complete Dextrose. This Dextrin content of Karo is of distinct advantage to the digestive processes.



*Both Blue Label and Red Label Karo are recommended by leading pediatricians. We suggest the smaller or 1½ lb. can for more convenient use.*

*Karo is the Corn Syrup now being prescribed for Infant Feeding not only because of its uniform high quality but because parents can secure it from grocers throughout the United States.*

## THORNER'S Silver Service



Thorner's Silver Service is made of 18% Nickel Silver with a quadruple silver plate. Wears a lifetime. Replacement through breakage is forever eliminated. It is never affected by wear or polishing.

Illustration features Thorner's Improved Three Compartment Hot Water Plate. Tea Set with reinforced bands, hard metal hinges, Silver Soldered and one-piece unbreakable bottom. Covered Soup Cup with Silver Soldered handles. Sherbet Dish, Gravy Boat, Individual Napkin Ring and Tray Marker, Bud Vase, Salt and Pepper Shakers and Superior Grade Sectional Plate Flatware.

### THORNER BROTHERS

*Importers and Manufacturers of  
Hospital and Surgical Supplies*

135 Fifth Avenue  
NEW YORK CITY

Catholic Hospital Assn. Exhibit, Cincinnati Music Hall, Cincinnati, Ohio. June 18th to 22nd. Booth No. 43.

### Group Insurance Plan for Hospital Employees Announced

Announcement of a group insurance plan covering the permanent staff of the Methodist Episcopal Hospital, Brooklyn, N. Y., was recently made by the executive board through Rev. James E. Holmes, superintendent. Staff members are participating in \$175,000 of life insurance with total and permanent disability benefits which became effective February 15.

The contract was underwritten on a cooperative basis by the Metropolitan Life Insurance Company, New York, the hospital paying part of the cost. By this means, each subscribing employee receives \$1,000 of life insurance at an exceptionally low rate.

### Gift Provides Children's Wing for Brockton Hospital

A new memorial children's building has been donated to the Brockton Hospital, Brockton, Mass., by Mr. and Mrs. Harold C. Keith, Brockton, in memory of their daughter, Barbara. The new hospital, work on which will start immediately, is to be known as the Barbara Keith Building for Children, and it will be devoted exclusively to the care of infants and children. This gift will relieve the overcrowded condition of the Brockton Hospital, and connecting corridors will be built between the new building and the hospital proper.

In addition to the building, Mr. and Mrs. Keith will provide an endowment of \$10,000 to operate it.

### Christ Hospital, Cincinnati, Building New Nurses' Home

Again the old must make way for the new. On North Main street, Mount Vernon, Cincinnati, we shall no longer be able to find the historic old Children's Hospital. It is rapidly being torn away to make way for a new building. The new building is to be a seven-story structure, and will be used as a nurses' home in connection with the new Christ Hospital. Six hundred thousand dollars, a sum representing the total expense, has already been pledged for this building, and it will be made to accommodate 275 nurses. There will be class, lecture and demonstration rooms.

### New York Dietitians Hold Meeting

At a recent meeting of the New York Association of Dietitians, at the Montefiore Hospital, New York, which was preceded by a dinner and general inspection of the hospital, several interesting talks were given concerning dietetics in the hospital. Jacob Goodfriend, assistant superintendent of the hospital spoke on "Food Service from the Point of View of the Patient." Dr. David Marine, director of laboratories, spoke on "Some Aspects of the Tonsil and Adenoid Problems from the Nutritional Point of View." He emphasized the prevalence and seriousness of overgrowth of the lymphoid tissues, and said that he believed that time and research will show this to be caused by a nutritional deficiency, and that the study of the problem should shortly be undertaken.